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ORIGINAL ARTICLES.

CESAREAN SECTION IN CASES OF PLACENTA PREVIA.

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The introduction of Cesarean section as a possible therapeutic measure in the treatment of placenta previa is sufficiently striking as to demand a careful consideration. I thefore gladly comply with the request extended to me by Dr. Hugo Ehrenfest, of St. Louis, who recently dealt with this question very extensively,* and accordingly submit my personal views in regard to this procedure now being advocated in America.

I can only deal with the subject from a theoretical standpoint, as I have never performed Cesarean section on account of placenta previa, and probably will not do so for some time to come.

In considering this question, two points are to be kept in view: first, does Cesarean section afford a hope of reducing maternal mortality in cases of placenta previa? Secondly, shall we be able to save more children by the performance of this operation? Before attempting to answer the first question, I will consider briefly the present methods of dealing with cases of placenta previa. Speaking generally, I have for many years adopted the method of bimanual version, followed by the attachment of a weight of about three pounds to the fetal leg which is brought down through the vagina. The expulsion of the fetus, assisted somewhat by the continuous traction exerted by the weight, is left to the natural forces until the umbilicus emerges from the vulva. From this point on the case is managed in accordance with the usual mode of dealing with breech presentations.

A compilation of the cases of placenta previa treated in my clinic during the past ten years shows a total of 234, 16 of which ended fatally. It should not be assumed, however, that death in every one of the sixteen fatal cases was due directly to the placenta previa, viz., hemorrhage, inasmuch as many of these cases were admitted in a septic state, and with various injuries to the genital organs. But even including all cases, 16 deaths out of 234 cases—*i. e.*, 6.8 per cent.—is not a high mortality, especially when we bear in mind the pitiable condition in which many of these patients are brought to the hospital.

The extreme view of certain American authors who pronounce Cesarean section the only rational treatment for placenta previa in general, has been very properly repudiated by those who would confine this heroic procedure to cases of placenta previa centralis or partialis.

* *American Medicine*, January 11, 1902.

The advocacy of Cesarean section in *all* cases of placenta previa, which necessarily includes those cases, for instance, in which simple opening of the amniotic sac suffices to stop the hemorrhage, hardly deserves serious consideration, and I will therefore limit my remarks to those severe cases of placenta previa centralis or totalis. This condition was encountered fifty times, with a fatal issue in nine instances. To replace version by Cesarean section in such cases would add another great danger to that already existing. Even in the most perfectly appointed hospital it is impossible to perform such an operation immediately upon the entrance of the patient, as various preparations have to be made. Yet we must remember that delay means a diminished chance in placenta previa. On the other hand, version can be speedily performed, often without waiting until the patient is anesthetized, since the majority of cases occur in multiparæ. In my experience, all immediate danger is past as soon as version is completed. If version has been performed *lege artis*, and the breech is kept pressing against the lower uterine segment (by means of the weight attached to the fetal leg), then hemorrhage is positively checked, and from this moment there is no further loss of blood. What is the situation if Cesarean section is to be performed? A deep narcosis is necessary. The uterus must be opened—a procedure always accompanied by loss of a certain amount of blood; often a copious hemorrhage cannot be avoided. After removal of the fetus, the placenta must be peeled off from the lower uterine segment. During all these procedures there is imminent danger of atony of the uterus, because serious hemorrhages in placenta previa centralis usually occur before labor pains have begun and the uterus is contracting firmly. If prior to the operation a woman has lost a large amount of blood, she will be in no condition to withstand this procedure.

Certainly, the results of Cesarean section performed in my clinic on women whose genitalia were in an aseptic condition are excellent. But the prognosis is quite different in those cases where, without strict application of the laws of asepsis in regard to the instruments, bandages, cleansing of the hands, etc., repeated examinations have been made, or where various operative procedures or tamponade, etc., have been tried. I made it a rule of my clinic to exclude from conservative Cesarean section all cases which were handled before entrance by untrustworthy people, provided the indication for operation was not absolute. My practice is to perform craniotomy in such cases. How many of the cases of placenta previa brought into the hospital will conform to this strict but indispensable requirement for the performance of Cesarean section? Very, very few, I believe.

The question whether Cesarean section promises to reduce the maternal mortality in such cases, must therefore be answered in the negative.

We now come to the second question: Will Cesarean section performed in placenta previa reduce the fetal mortality? It would seem that this question could be answered affirmatively. The fetal mortality with our present treatment of placenta previa is a high one, because we treat expectantly and refuse to perform immediate extraction as it is a procedure dangerous to the mother. Most of these children die from asphyxia, some from loss of blood. Out of the 234 cases of placenta previa mentioned above, 127 of the children died, a percentage of 54. There were 35 deaths in children in the 50 cases of placenta previa centralis (70 per cent.), leaving 92 deaths for 184 cases of placenta previa of varied types, excluding placenta previa centralis (50 per cent.). These figures

are wholly in conformity with the well-known fact given, that the mortality to the fetus in cases of placenta previa centralis is higher than in the other types. If a Cesarean section could be performed immediately after the appearance of the first hemorrhage, if at this time the fetus is alive and viable, its life could undoubtedly be saved. But if we look over the reports of these cases, we will see that only a small number of these children are fully developed. In my 234 cases, only 92 children were mature. The mortality of premature children is generally high, but is much higher in these cases because they suffer considerably by asphyxia due to the partial separation of the placenta from the uterus But again, we have to take into consideration the cases of placenta previa centralis only. We find that out of these fifty cases only eighteen children were at full term, the remaining thirty-two being premature. This fact is of great importance and really decides the question.

I believe that, even by applying Cesarean section to cases of placenta previa centralis, we shall not obtain better results in regard to the fetal mortality than with our commonly practiced method.

I would state, in conclusion, that no one is justified in regarding Cesarean section as a simple operation, free from danger or harmless in its after-effects. It is a laparotomy, and thus is an operation in which a single lapse of the laws of asepsis or antisepsis may bring about detrimental results. The scar in the abdominal wall gives a chance for the after-development of an hernia, and this is certainly not a negligible factor, especially in working women.

For the reasons given above I do not approve of Cesarean section at the present time as a method of treating placenta previa.

Some future day will show whether my present attitude on this question is justified or not.

Vienna, February 26, 1902.

THE TREATMENT OF TUBERCULOSIS.*

By Wm. C. Glasgow, M. D., of St. Louis, Missouri.

The treatment of tuberculosis is such a vast subject, if we enter into the details, that it will be difficult to condense it to make it suitable for this meeting. As the time assigned to me is limited, I will only speak in brief of what I consider to be the essential principles.

Before considering the treatment it will be necessary to say a few words on the pathology of the disease. Our forefathers believed that it was due to a degeneration of the cells, and that the degeneration was the result of defective nutrition. Koch and his followers attributed the disease to the tubercle bacillus; others have claimed that a certain kind of soil is necessary for the development and the multiplication of the bacillus. All of us who have had practical experience with tuberculosis have seen cases in which the sputa showed under the microscope enormous numbers of the bacillus, and at the same time the well-known constitutional symptoms of tuberculosis have been absent. These cases show very little emaciation and loss of weight, with very little impairment of vigor; they are able to perform their several duties, and some even take on flesh. I recall two cases of this kind: One a lady who had had a cough for six months;

* Address delivered before the Alumni Association Medical Department of Washington University.

she expectorated great quantities of sputa, which on bacteriological examination showed enormous numbers of the tubercle bacillus. She presented no other symptoms of tuberculosis of the lung. She was pursuing her usual social duties without any special inconvenience. After three months her cough and expectoration ceased entirely. She had gained fourteen pounds, and she considered herself practically well. During the whole time examinations of the lungs failed to show any of the usual physical signs of a tubercular lesion.

Another case was a man who came from the Panhandle of Texas in charge of a train of stock. He was coughing and expectorating great quantities of sputa. He seemed vigorous, and complained only of the cough. On examination the sputa showed a great number of bacilli; in fact, it was more like a laboratory culture than ordinary tubercular sputum. He returned to Texas, but came to St. Louis again in two months. He had gained a great deal in weight, and his cough was much improved; the sputa, however, on examination showed an increased number of bacilli. In both these cases there was great improvement in general conditions and an absence of the constitutional symptoms of tuberculosis.

The occurrence of such cases without an explanation seems to cast a doubt on the virulency of the tubercle bacillus, and it is difficult for us to understand why in one case we should have grave constitutional symptoms with very few of the tubercle bacilli in the sputa, and in another a great number of the bacillus with almost entire absence of constitutional disturbance.

I have considered these cases to be simply cases of local tuberculosis of the lung in which the tubercle bacillus has found lodgment in the gland or in a limited area of tissue, and that the toxins are not sufficient to produce the ordinary symptoms of the disease. They are analogous to the local tuberculosis seen on the skin and in the joints.

In our older books we have read a great deal about scrofula and the strumous diathesis, a condition characterized by great chronicity in the lesions, and when located on the mucous surface by thickening and a tendency to purulent discharges. Glandular enlargement was a frequent occurrence. Chronic phthisis was considered a scrofulous disease. A sharp differentiation was made between this disease and tubercular phthisis. Advance in bacteriological researches showed the presence of the giant cell and the tubercle bacillus in the so-called scrofulous glands, and at the present time these cases are generally included under the name tuberculosis. Our forefathers constantly feared that their scrofulous cases might become tubercular, and this was expressed by Felix Niemeyer when he said: "The great danger of the phthisical individual is the danger of becoming tuberculous."

It seems to me that possibly a fresh light has been thrown on the subject by recent bacteriological reports, in which it is claimed that the constitutional symptoms of tuberculosis are not entirely due to the tubercle bacillus, but rather to the invasion of cocci, streptococci, staphylococci, etc., which have become pathogenic. If this can be substantiated, many of the mysteries of tuberculosis will disappear. Felix Niemeyer's words will have to be changed, and we will use the expression: "The great danger to the tuberculous individual is the danger of becoming infected with the pathogenic cocci." Under this interpretation the words scrofula and tubercle become synonymous, but the disease tuberculosis assumes a greatly modified meaning. It must be considered as a mixed infection; first, the lodgment of the tubercle bacillus on fertile soil; second, the in-

vasion of the cocci which have become virulent and which are responsible for the manifold symptoms which we associate with tuberculosis. A possibility must be considered, the possibility of the tubercle bacillus acquiring increased virulence from the presence of the cocci toxins, and that when it exists alone it may be conservative, with its tendency to produce fibroid tissue; this would appear to be shown in the contrast between a tubercular cavity with its indurated walls and the soft irregular walls of a cavity in a streptococcous lung. We know that in other diseases the mixed infection is more virulent than the original one; for example, diphtheria is a mild disease compared with the conditions following the infection with streptococci. I cannot vouch for the truth of these views, and I only give them to you this evening in order that they may be given due consideration and thought. They appeal to me very forcibly from a clinical standpoint, and if we can accept them, our treatment of tuberculosis will be more clearly defined.

As germs are acknowledged to be the cause of tuberculosis, it is evident that an arrest or cure of the disease can only be accomplished by destroying the germs or neutralizing the influence of their toxins. The brilliant results in modern surgery has stimulated efforts to find antiseptic remedies which, when given internally, will be equally beneficial. These efforts were made, however, long before the bacterial origin of the disease was known; for example, in the tar treatment of Berkley; and this has been followed more recently by the sulphurous acid injections of Bergsen, the benzoate of soda treatment of Rokitansky, the creosote and ichthyol treatment of the present day. Of all these, the two last are alone in use at the present time, the others have been tried and found wanting.

If we could accept the claims of the advocates of the serum treatment, we would have ideal remedies against tuberculosis in tuberculin and the anticocci serums. Unfortunately, however, the results from the use of these serums have not been satisfactory. Serum therapy is still in the experimental stage, and we can only hope that the future will give us a reliable serum to meet the indications of tuberculosis.

As our efforts towards destroying the germs through antiseptic medication have been so unsatisfactory, what other means have we for counteracting their destructive influence? In old books we find the expression "*Medicatrix vis naturæ*"—the inherent power of the tissues to resist disease; in the light of our present knowledge, we would now translate it the normal cell antagonism to micro-organisms. As we have failed to arrest the disease through antiseptic medication, can we not accomplish something by this normal cell antagonism? Does not our line of treatment lie in the possibility of increasing the power of resistance of the normal cells? We can do this; and such is the trend of the modern treatment of tuberculosis. Everything which improves the nutrition of the body, which gives increased tone and vitality to the tissues, adds so much to the resisting power of the normal cell. We accomplish this by feeding, by giving the individual the greatest amount of fresh air, and by shielding him, as far as possible, from depressing influences.

Feeding—forced feeding, as it is called—is now accepted as one of the most important factors in increasing nutrition. As much food must be given as can be assimilated; the limit is fixed by the power of assimilation, and anything beyond will be more injurious than useful. Consideration must be given to the

idiosyncrasies of the individual in regard to different kinds of food. The actual condition of the stomach and intestines should be considered and everything avoided that would produce indigestion. This forced feeding is not modern. We can recall the old practice of consumptives visiting slaughter-houses and drinking fresh blood in large quantities; also the old Saulsbury treatment, which consisted in giving as much beef as the individual could digest.

We all know the influences of mind over matter—how the mind influences the vaso-motor system, and what a powerful effect results from depressing mental influences on nutrition by depressing the vitality and lowering the resistance of the tissues. I believe that mental influences are a most powerful factor in the arrest of tuberculosis. I am sure that we have all seen instances in which a depressed mental condition has antagonized our best efforts, and where a cheerful, hopeful condition of mind in the patient has been of invaluable aid to us. From statistics we know that the percentage of deaths is greatest in the insane asylums and prisons. I fully believe than the depression from the situation is even a more powerful factor in producing the disease than the confinement.

Pure air is of the greatest importance in improving the nutrition; it is an excellent tonic, and it has been found that the consumptive improves most rapidly when he is able to remain the greater part of the time in the open air. A change of air is useful in promoting vigor. We demonstrate this ourselves when we return from our vacations with greatly improved tone and power of work.

The physician is constantly called on to decide the question, shall we send our consumptive patients away from home to get better air, and to what climate or climates shall we send them? In making this decision the physician assumes a grave responsibility. The consumptive catches at any hope of relief; he listens to suggestions of friends on the advantages of different climates; he is eager to go to any place, however inaccessible, that has been recommended to him. The advice of a physician in whom he has confidence will have great influence in directing his movements. In my opinion the first thing that a physician should consider is the finanical condition of his patient. Can he stand the expense of living away from home in a proper manner; that is, can he be comfortably lodged and can he get proper, nourishing food? Are the surroundings of the proposed resort suitable for one in his condition, and for one of his special disposition and temperament? Many poor unfortunates have been sent away from home with only sufficient means to pay for their transportation, with the hope that when they arrive at the chosen place they will find work by which to live. If this was always an assured thing, we could conscientiously advise the change; but we know that the labor market in the West is already overcrowded, and the probability of getting any living employment out-of-doors is very slight. The result is that they become paupers and burdens upon the community. We have seen latterly many protests from western towns against this influx of poor consumptives. In some places legal restrictions are being discussed which will absolutely prevent their entrance. These protests are not from the fear of contagion, but from the inability to take care of the increasing number of the destitute. I think that it is simply cruelty to advise such persons to make a change, and it is an injustice to his family to encourage delusive hopes of recovery under such circumstances. If the consumptive has sufficient means, there is a great choice of localities. The chosen climate should depend on the actual pathological condition of the individual, the disposition, and on the sex. A man can go away and improve

in many places where a woman would die. Some men are cheerful, hopeful, and endeavor to make the best of everything with determination to get well; they live accordingly. Others are discontented, low-spirited and prone to attacks of ennui and homesickness. They cannot accommodate themselves to their surroundings, and live in a constant state of depression. Each of these needs surroundings adapted to his individual case. Such places can be found in different parts of the country. The highlands of Georgia and the Carolinas, the Adirondacks, the plains of northwestern Texas, the elevated plateaus of Colorado and New Mexico, the deserts of Arizona, and the sunny slopes of California afford a varied choice, which may be suitable to any individual case. According to my experience, the general results acquired by a residence in these places is about the same. In some cases the disease is arrested for a longer or shorter period; in some the arrest has been so prolonged that it could almost be called a cure. In others, however, unhappily, little benefit has been obtained by the change. If there is any choice in climates, I would prefer that the patient should spend the winter in Arizona, and the summer on the elevated plains of New Mexico or Montana.

With feeding, climate and cheerful surroundings we must class intelligent medical treatment as an important factor in the arrest of the disease. A case of consumption needs as careful medical supervision as a case of typhoid fever; symptoms that arise must be relieved, otherwise the weakness and depression caused by them may undo all favoring influences; hence, I think that the presence of a competent medical advise within reach is most important.

For numbers of consumptives who appreciate the fact that they are not able to get the benefit of a change of climate, what is called the home treatment offers a certain amount of relief. If they are in the first stages, we can locate them in the suburbs, where they can breathe pure, fresh air, and live out-of-doors as much as possible. If they have an indoor occupation, this must be given up, and one that keeps them out-of-doors must be substituted; they must be nourished to the full extent of their assimilation. In some respects such cases have an advantage over their exiled brethren: they are at home with all its comforts, they are with their family and friends, and are within reach of the usual amusements. Some cases of tuberculosis in the early stages improve more under these conditions than they would do if they were sent away, and in some of these cases the improvement is more permanent.

Sanatoria or cottage hospitals for consumptives have now a prominent place in the public mind. If we take the statistics of these institutions, showing the percentage of arrest and improvement, we would think that they are the solution of our consumptive problem. When we consider, however, that these institutions only receive selected cases—that is, cases in the earlier stages of the disease—we must doubt the value of these statistics, for such cases improve everywhere, and especially if they can receive the care and nourishment of a well-equipped hospital. In theory the sanatorium seems to offer great advantages, the patient is absolutely under the control of the supervising physician, and every movement is regulated, he receives the very best food, and his surroundings are, in many respects, most favorable. If only the earlier cases of consumption are received, there are none of the depressing influences that will be found in hospitals receiving patients in the advanced stages of the disease. The success of an American sanatorium will depend largely on the physician in charge. He must be able to obtain the respect and confidence of his patients. He will then be able to guide

and influence them; all tendency towards commercialism must be absolutely excluded. The sanatoria of Trudeau in the Adirondacks and Bowditch in Massachusetts are models of their kind.

Considering all the advantages and disadvantages of living in a hospital, I cannot help thinking that the home treatment of consumption, whether the home be in his native place or one established in a better climate, offers the best prospect for the arrest and the permanent cure of tuberculosis.

HEMATEMESIS IN PERNICIOUS MALARIA.

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Patrick Manson states in his famous "Tropical Diseases" (page 107): "*In high degrees of cachexia*, hemorrhages of various kinds are apt to occur—epistaxis, hemoptysis, hematemesis. . . . In such cases trifling operations—tooth extraction, for example—may prove a dangerous matter." . . .

Experience causes me to take exception to the above statement, as far as *high degree of cachexia* is implied as the limit of said hemorrhages. In cases of severe infection, even of relatively short duration, these hemorrhages may occur as well as in chronic cases. Naturally, chronic cases are more apt to suffer. For example, it is frequently observed in the coast part of this country, women suffering from chronic malaria are predisposed to menorrhagias and metrorrhagias. In fact, this condition among the poorer classes, especially half-breeds and Indians, is the most frequent ailment for which the physician is consulted. The rapid effect of quinine and iron in many of these cases establishes their purely malarial origin.

Following are given a few cases of hematemesis under my direct observation during the last two years:

Case I.—W. B., æt. twelve, boy, of American-Swedish descent. Up to this time was well. Tuesday evening had a chill, followed by high fever. Wednesday became comatose. During the night hematemesis and epistaxis set in. Was in a dangerous condition Thursday, when I saw him.

Case II.—Ladino, æt. thirty-five; alcoholic. Had enlarged spleen. History of tertian attacks for about a week. Had taken daily one hundred grains quinine without benefit. The day before I was called he had a very severe chill, and had been in a comatose condition since. Found him with a temperature of 103½°, pulse 120. Since previous night there was hematemesis. According to the statement of his woman, the vomiting consisted first of a black mass, like ground coffee; later it became free blood. There was also hematochezia. The eyes had a yellow hue, and the case was considered yellow fever. Examination of the blood showed malignant tertian bodies. As hypodermic medication was refused by the half-savage attendants, I retired from the case. The man died the same day.

Case III.—Half-breed, æt. nine. Had intermittent fever for several weeks. A kind of black vomit began about two days before. There were also sanguinolent stools. The blood of these was not coagulated. A small swallow of water would cause spasmodic vomiting, followed by liquid blood. I at once gave quinin subcutaneously, followed by a high enema of normal salt solution and followed by stypticin. After three hours the latter was repeated, with a little codein, as the vomiting was incessant. During the night the vomiting ceased. Next

morning the quinin was repeated, also the enema. Milk was given and retained. The following day administered euquinin and broth. Speedy recovery followed the above treatment. The spleen became enlarged during the illness, and remained so to a certain degree.

CASE IV.—Catalina B., æt. twenty-four, Spanish descent. Daily ague for four days. Temperature 104°, pulse 102. In the fifth month of pregnancy. Eyes and skin marked yellow hue. Spleen hard and painful. Constipated for three days, although the patient had been given one grain calomel the day before, followed by two ounces of castor oil. Complained of burning pain in stomach and bladder. Most of the time comatose and delirious. Since previous day vomiting bilious matter and free blood in large quantities. In the morning began also moderate hemorrhage from the genitals. A copious enema of pure water, bringing about evacuation was given at once, followed by a retention of enema of salt solution.

Injected one liter of normal salt solution in two administrations. Gave quinin hypodermically and stypticin in the same way. The latter was repeated every three hours. The quinin was repeated next morning, when I found the patient perspiring freely and with clear sensorium. The temperature was then only 99.3°. Gave per orem menthol and codein, and afterwards a little milk, which was retained. The metrorrhagia had not ceased entirely, and I repeated the astringent during the day. Next day, no hemorrhages; gave milk, raw eggs and broth, and repeated the quinin, which was exchanged the following day for euquinin per orem. Daily gram doses of euquinin were kept up for a week. *Neither this nor the daily injections of 100 c.c. of neutral hydrochlorate of quinin had caused any abortion, in spite of the uterine hemorrhage.* The woman gained her strength only slowly, and gave birth at term to a small, weakly child *with enlarged spleen, which soon died—a case of fetal malaria.*

CASE V.—Antonio R., æt. thirty-five, ladino. Was working in a cattle ranch up to two days before death. I knew him as a strong, hard-working man, with a moderately enlarged spleen, and on pay-days fond of a spree. His illness began with chill after a day's dissipation. I found him comatose; temperature 104.1°; pulse thin and rapid; was lying a pool of blood; had free epistaxis, hematemesis and hematochezia. Injections of saline solution and other remedies were refused. He died the following night. The blood showed again the malignant tertian bodies.

Necropsy.—Only brain, stomach, liver and intestines presented abnormalities. In the brain were many dots of fine thrombi, not of the usual red color, but black; also, many engorged capillaries. The stomach was full of black blood, the walls injected, at places eroded and friable. The intestines in same condition. The spleen was large with necrotic spots and pigments. The liver also showed accumulation of pigment.

All these cases are alike in some respects. In the blood I always found the varieties of malarial plasmodia that belong to the æstivo-autumnal group described by Marchiafava and Bignami as the malignant tertian parasite. The number was always exceedingly large, and the parasite itself of enormous size, with many highly pigmented bodies present.

Not one of these patients was really cachectic. I selected these five cases because they were not cachectic. With cachectics, as Manson said, the hematemesis is not uncommon. I wish to prove the *high degree of cachexia* is not alone a causative factor in these hemorrhages. Enlarged spleen is not absolutely an indication of malarial cachexia. As a rule, most malarial cachectics show splenic tumors, yet I know individuals whose health apparently (with the exception of a spleen remaining large) is restored. I say *apparently.* They are not cachectics in the true sense of the word, as all symptoms of ill-health have dis-

appeared with no discomfort other than an irregular girdle. I met such a case in Japan; he was a good mountain climber, very good at the bowling alley, a very strong hand at the bar, and untired in the cult of Venus. Ten years before he suffered much from malaria; had to go to Europe and returned one year after in the condition I met him. Certainly he will pay some time for his irregular life, but he certainly was not cachectic at the time. In San Francisco I met a lady of apparently good health, a good bicyclist, regular visitor to the Rockies; was very active in social and charity work, yet she had a large waist due to a splenic tumor, a relic of some years' sojourn in Panama, I know also, and this time very well, a medical man who several years ago went to the south of China. Ten days after his arrival he suffered from his first ague. During his whole residence there he had always more or less a slow fever, even some apoplexy-like attacks, most likely of malarial orgin, malarial hemorrhage into the brain. He spent the winter in the United States, and came then to Central America; began his career there in a swampy district as surgeon of the troops. He had to lead a very unhygienic life, camped out often, frequently not protected against the swarms of mosquitoes for three weeks at a time; exposed himself many a day to the tropical beach. At the beginning he sometimes has ague. Now he appears immune. He is fond of outdoor sport, and has a good deal of it. He weighs more than ever, far over two hundred pounds, leads a very active life, and is considered in all respects a very strong man. Yet he has a Chinese relic, a somewhat enlarged spleen—which, however, never troubles him. Furthermore, I know an old English resident, with over thirty years' hard work in Central America; he passed through severe fevers, even hematemesis. He complains only of the prominence of his splenic tumor. He is working quite hard in his placer mine at present, and is free from all complaint. These cases I cannot consider as splenic cachexia. I believe the term cachexia is only proper with chronic malaria when we have progressive anemia. As I have shown, there can be a large spleen without anemia; the cases may be rare, but they exist.

Excluding cachexia, we notice that some of the cases were alcoholic. These seem to have predisposition to hematemesis, especially after exposure to the sun. Exposure to the sun predisposes in favor of the comatose type. (Bacelli.) It is not uncommon that new-comers, after a spree, come down with fever, as is often the case with sailors who spend only a few days ashore. The abuse of alcohol seems to favor the development of the parasites. If malarial individuals, or those just recovered from a first attack, go on a spree, hematemesis is likely to follow. I know of such cases that were picked up comatose in a pool of blood and were sometimes mistaken for cases of delirium tremens. I have seen such a case, a shipmate in Hongkong. Overheating of new arrivals in a malarial region seems to be favorable for the development of the hemorrhagic type. When I took charge of the garrison of Truxillo, I found in the lazaretto many soldiers suffering from what I considered then to be dysentery. The presence of parasites and the success with anti-malarial treatment proved clearly that I had to deal with malarial hematochezia. Amongst the residents I never met this form. I am told that in a former campaign, when the town was crowded with soldiers, this type was epidemic and many died. The recruits come, as a rule, from the cooler, mountainous interior. Their manner of life was changed at once. Their food was different. At home, as a rule, they did nothing or but little more, their women doing the work. They busied

themselves with their hammocks, except working their fields for a few days in the month and hunting in the shady forests. Now they had to do duty on the hot beaches and in the stony fort without protection against the sun. As a rule, expeditions moved at night, but often also during the day. Such a march along the beach means more than only exposure to the sun. The route is invariably along the seam of the sea, because the sand is moist and hard. At one side high drifts of white sand, that reflect not only heat but also light. At the other side the always rough sea, that also reflects heat and light better than a mirror. The monotonous sound of the breakers tells on the nerves. From above; the tropical sun. The slightest breeze fills mouth, ears, nose and eyes with fine sand. No water, at least no good water, for sometimes ten miles. Thirty miles only are considered a fair day's march. One riding such a distance will feel feverish at night, when he finds only jerked beef and beans or plantains as food and a hammock as a bed, where he can protect himself only partly against the ever-present mosquitoes. How much more will the degenerate ladino suffer, who has to walk and often sleep on the ground, filling his stomach with brackish water and stale fruit. Naturally his first malarial attack will derange the alimentary apparatus and cause the hematochezias just mentioned.

Although the five cases of pernicious malarial hemorrhage I described were the only ones of non-cachectics under my direct observation, they are by no means very rare. In fact, they are taken frequently for yellow fever, because the patients die in relatively short time and often show the icteric hue. I know of a healthy child that was taken to the coast and died within twenty-four hours after the first and only chill, of "vomito-negro." No wonder the natives fear so much the "vomito-negro"—black vomit. Usually only natives succumb, foreigners form the exception; while with yellow fever the foreigners die and the natives form the exception. No more than a few days ago a prominent colleague of this faculty, who just returned from the Pacific coast, told me, when asked about the yellow fever rumors, that he had examined the suspected cases and that they belong to the type just described.

How do the hemorrhages occur? My fifth case, on which I performed autopsy, gave me the key. The blood shows abundance of plasmodia malariæ. The pigments increase the coagulability. The brain was studded with many fine hemorrhagic dots. The small size is accounted for by the quickness of coagulation. The enlarged blood corpuscles block the lumen of the capillaries and the thrombosis ensues. All of my cases were comatose; this coma is due to the enlarged capillaries and the consequent pressure. The hematemesis is caused by a similar process in the mucosities of the stomach. The convulsive contractions during the vomiting strains the engorged capillaries and they rupture. This process also accounts for the shape of the coagula. Only when larger vessels rupture have we free hemorrhage. If the individuals are alcoholics, the mucosity is already in a state of congestion and consequently the hemorrhage with them is mostly free. That these cases occur at all is due to the severity of infection.

Bassere (*Archives d'Opthalmologie*, June, 1896) describes twelve cases of malarial retinal hemorrhages with the Madagascar troops The hemorrhages occurred suddenly, often at the height of the first attack of fever.

There is no reason to exclude analogous processes in the intestinal tract, and *cachexia is therefore no necessary condition.*

As to the treatment, it must be anti-malarial. Quinin is always indicated in these cases. The more severe the case, the more exact the indication. Not to lose time and not to exhaust the patient by provoking more vomiting, we must resort to hypodermic medication. We are sure then that the necessary quantity of the medicament is introduced into the system. Less than 100 c.c. is hardly sufficient, and the more severe the infection, the larger the dose that can be administered without undue effect. Not until the stomach is absolutely at rest can medication per orem be considered proper; but even then never in form of pills or capsules. If only bitter salts on hand, wafers can be used. I prefer to use euquinin, inasmuch as the acid of the stomach probably reduces the quinin-ethyl carbonate to quinin, and therefore the action is the same; cinchonism occurs just as well as with quinin, amurosis may sometimes follow its use; but the bitter taste of quinin is thus obviated. We cannot deny that the bitterness of quinin is often sufficient to cause vomiting. Therefore my principle is to inject the neutral hydrochloride until euquinin can be taken. Stypticin controls the hemorrhages in these cases as well as in those due to tubercular processes.

If the hematemesis been excessive, an injection of the normal salt solution should follow the administration of quinin, not only to prevent collapse, but also to dilute the blood and thus diminish the formation of the capillary thrombi.

LIGATION OF ARTERIES—COCAINE ANESTHESIA.

By B. Merrill Ricketts, Ph. B., M. D., of Cincinnati, Ohio.

A plea is herein offered for a more general use of cocaine for local anesthesia, especially for operations upon the head, neck and extremities. It should not only be more generally applied in these regions, but on occasions demanding it, to parts of the trunk as well.

Its use has become better and more generally understood than any of the local or general anesthetics. It is certainly more efficacious, more desirable, and less dangerous. It has a wide scope of usefulness, while as yet it has been applied to but a limited degree.

Reference is made to its application to operations of any character on the extremities, and especially to its application in those involving the blood vessels. Indeed, there are but a few kinds of surgical operations that have not been done in a very satisfactory way with the local use of cocaine.

Cocaine anesthesia will not only permit of the ligaturing of the more important blood vessels, but celiotomy for various purposes as well. The removal of the various neoplasms, malignant and benign; plastic operations upon nerves, cutaneous, muscular and bony structures in a healthy or pathologic state; removal of foreign bodies, or amputation of any part of the upper or lower extremities, are advised.

Amputation at the shoulder-joint has been successfully accomplished with cocaine as a local anesthetic by Crile; and while there is no recorded case for demonstration, there is no reason why even amputation at the hip-joint should not now be accomplished in this manner.

Since the injection of a solution of cocaine into the nerve trunk or its sheath, or both (known as blocking, was advocated by Matas and Crile), a greater scope of usefulness is available. The blocking method prevents afferent impulses from reaching the central nervous system, and in this way shock is prevented. Crile's theory has shown this to be the cause of shock, and that injury or operation may excite afferent impulses to produce it.

Subcutaneous injection of cocaine was first practiced in 1884 (the year the drug was first placed on the market). Since then much excellent work has been done with it, both subcutaneously and upon mucous membranes.

The effects of the remedy have become better known from experience and careful study, until now there can be no question as to its occupying a most prominent place along with ether and chloroform in surgical work. Cocaine should not be used in all surgical operations or kinds of operations; neither should ether, chloroform, nitrous oxide, or any of their combinations. There are cases that will necessitate the use of an anesthetic that will produce unconsciousness. Just so are there cases which demand nothing more than a local anesthetic. The judgment of the operator must be relied upon in the selection of the anesthetic to be employed.

INDICATIONS.—The use of cocaine for operations is especially indicated in pulmonary, cardiac and renal disease; also in case of exhaustion from any cause.

During unconsciousness emergency work may be accomplished by blocking the nerve trunk. In this way further shock may be prevented and much time saved and subsequent excitement will be much less marked.

Head and Neck.—The nerves supplying the head and neck being so very inaccessible, offer but little opportunity for "blocking." Subcutaneous injections must, therefore, be resorted to. The external soft tissues of these regions may be subjected to operations by such injections without pain. This is also true of operations upon the mucous membranes, when local applications or subcutaneous injections are made separately or combined.

The constitutional effects of a given amount injected in the head, face and neck are more marked than when injected in other parts of the body or extremities. This is due to two causes: more rapid absorption and its proximity to the brain. For this reason less cocaine should be used and the blood vessels avoided.

Laryngotomy, laryngectomy and amputation of the breast can and should be more frequently performed with the subcutaneous use of cocaine. Resection of one or more ribs can be accomplished with ease, and should be resorted to with cocaine in many conditions of the chest requiring surgical intervention.

The removal of blood, pus or serum from the pleural or pericardial cavity should be done in this way. Pulmonary abscess, injuries to lung or heart, are made surgical by its use. It should not be applied to the heart muscle itself, but to the pericardium and overlying tissues to be incised or sutured.

Any operation, whatever, may be made upon the shoulder or arm by injecting the brachial plexus, which is best reached through an incision intended for ligation of the subclavian artery. The artery may, if necessary, be ligated through the same incision which has been made for the subcutaneous injection of cocaine. The amount required for injecting the nerves need not exceed one drachm of a one-half or a one per cent. solution. This was the method employed by Crile in amputating at the shoulder-joint, which was so successfully accomplished with recovery of patient.

For operations about and below the elbow, a consideration of the musculo-cutaneous, median, ulna and musculo-spiral nerves, one or all, must be given, the degree of anesthesia being proportionate with the number of nerves injected and the thoroughness with which it is done. Only a few drops is required for each individual nerve.

Lower Extremity.—The injection of the external cutaneous is done with ease, it being superficial. The anterior crural should also be injected together with the great sciatic.

Blocking of the anterior crural and sciatic nerves will produce sufficient anesthesia to make any operation below the point of puncture painless. This nerve is best reached at the lower and middle border of Pouparts ligament. It is more easily approached than any of the greater nerve trunks of the extremities, and for that reason it is probably best to inject it in all important operations that are to be made upon any part of the leg with cocaine anesthesia.

The sciatic nerve is best injected through an incision in the gluteal fold.

Scrotum.—The ilio-inguinal and genito-crural nerves supply the scrotum and its contents. The first accompanies the spermatic cord through the inguinal ring to supply the integument of the upper thigh and scrotum in the male and the labium in the female. It varies in size—usually small—and connects with the ilio-hypogastric. When it does, a branch of the ilio-hypogastric takes the place of the ilio-inguinal or the latter may be altogether absent. In the second the first branch passes through the internal abdominal ring to accompany the spermatic cord posteriorly to the cremaster muscle in the male and the round ligament in the female. Injection of these nerves may be made in the same incision necessary for doing any surgical operation upon the scrotum or its contents. In this way ninety per cent. of all operations upon the scrotum may be accomplished without pain or danger to life, so far as the anesthetic is concerned.

Aneurism.—Subcutaneous injection alone, in and about the field of operation, is all that is necessary to make ligation of arteries of the extremities painless. However, blocking the nerve trunk is most practical, and no doubt should be done as a rule. There is more or less pain in tightening the ligature about the artery in subcutaneous injections unless the sheath of the artery be also injected. The use of local anesthesia is especially desirable in aneurism in the extremities.

Method.—A one-half to one and one-half per cent. solution of the best cocaine should be secured and the operator should know how to use it. An amount of solution containing from one-half to one and one-half grains of cocaine need not be exceeded in performing any operation. Subcutaneous injections alone for operations will require more of the drug than where the injections are confined to the nerve trunks. The amount of cocaine necessary for the incision to reach the nerve trunk is but a trifle more than the amount necessary for injecting one or more nerves. If subcutaneous injections alone be resorted to for operations involving more than the cutaneous structures, besides making deep primary injections, it will be necessary now and then to inject sensitive fascie or muscle or both.

It is necessary in all cases where the bone is involved, necessitating attack, to inject the periosteum directly, that its sensibility may be overcome; in this way the periosteum may be divided and retracted without pain or discomfort.

Subcutaneous injections alone are not so desirable for operations upon bony

structures as "blocking," especially in prolonged operations; such injections in the fingers and toes will make them anesthetic and permit of the bone being divided without pain.

Celiotomy may be made with the subcutaneous use of cocaine. In such cases it is well to inject the peritoneum also just before dividing it.

Advantages.—The danger of the drug is nothing if properly used, and it can be thus applied (a thing that cannot be said of ether, chloroform, nit. oxide, or any of their combinations). Nausea, vomiting, cephalalgia, nephritis, bronchitis, pneumonia and shock are absolutely avoided.

Crile says that injections into a nerve will not produce degeneration anywhere in its course, but that a needle puncture in the spinal cord will do so. This together with a very high death-rate and uncertainty of anesthesia should be sufficient to condemn spinal anesthesia. It would be just as rational to inject it into the cerebral arachnoid cavity.

CLINICAL REPORTS.

A UNIQUE CASE OF HEREDITARY LUES.*

By Martin F. Engman, M. D., of St. Louis, Missouri.

Mrs. X., age twenty-six. Is a fairly well-developed woman. Her mother has three other children living, all of them seemingly well. One child died in infancy. Mother is in good health, and denies all knowledge of any eruptive or luetic condition whatever. The patient was always a very delicate child. As an infant there was never noticed any eruption or symptoms suggestive of the present trouble. At the age of eight an ulcer appeared upon the front of each leg, these were cured by treatment. Subsequently a similar condition appeared

Fig. I.—Showing extent of ulcer upon lip and angle of mouth.

just above the left elbow. The patient has always had trouble with her throat. Three and a half years ago she had an attack of diphtheria, which has left her almost voiceless; she can hardly speak above a whisper.

One year ago she had a troublesome tooth drawn, when the dentist, she thinks, injured the gum and lip in the operation. However, there soon appeared a sore spot upon the gum which spread to the lip and caused the present condition for which she consulted us. During the year which this ulcer has existed it has been once or twice partially healed under internal and local treatment.

On account of the hoarseness the clinic clerk at first referred the case to the throat department; from there she was kindly sent to us. The throat could not be thoroughly examined on account of the ulcer upon the lips, which prevented them being sufficiently opened, but with a carefully reflected light several scars and small ulcers could be seen upon the soft palate, and the uvula secured by adhesions to the posterior wall of the pharynx. The vocal cords could not be examined.

* From Dr. W. A. Hardaway's service at the Polyclinic, Medical Department Washington University.

The ulcer occupied the left angle of the mouth, slightly invading the upper lip, while it extended almost to the middle line of the lower, deeply invading all the tissues of the lips and for an inch and a half beyond the angle into the cheek. (See Fig. I.) It was covered by a thick, greenish-black crust which exposed upon removal a fungous, foul, discharging bottom. The edges were abruptly circumscribed and indurated, a distinct characteristic of specific ulcers of this type. There was little pain, even upon pressure or manipulation. Upon the front of each leg was a white, glistening, smooth and oval-shaped scar,

FIG. II.—Showing saber-shaped tibiæ.

having all the characteristics of a former luetic ulceration; a similar scar was upon the left arm just above the elbow.

From the history of the case it was decided that the infection was most probably an hereditary one, which was partially confirmed by the shape of the tibiæ, they being the typical saber-shaped tibiæ, most often significant of lues. (See Fig. II.) As Dr. Hardaway wittily said, when he saw the case, "*La sabre de mon pere.*"

The points of interest in this case are several. The position of the ulceration upon the lip. Never before have I seen the report of such a destructive luetic infiltration in this locality. Cracks and small patches are common here in the early cases, but not deep lesions. Such a lesion coming so late would remind one of the tardy hereditary syphilis of the French, had we not the evidence in the tibiæ and scars of a former ulceration.

Another interesting feature is the perfect freedom of the teeth, eyes, ears and head from any evidence of taint. There has never been any trouble with the eyes, the hearing is perfect and the teeth are beautiful and regular. The nose is straight, and the head of a normal shape. The patient is normally developed; the busts are of fair size, and the menstrual and sexual functions normal.

That trauma has had something to do with the development of the lesion on the lip is probable. The ulceration about the tooth or the injury produced in drawing it was probably sufficient to start into activity syphilitic cells or organisms lying dormant in that position; thus producing the gumma. In all forms of latent syphilis, trauma, either mechanical or chemical, is often an important exciting factor.

The result of specific treatment proved the diagnosis. She first appeared at the clinic February 4, 1902, and upon the fourth of March the ulcer was entirely healed. In this connection it is interesting to note the more rapid effect of the combination of tonics with the specifics, so warmly advocated by Dr. Hardaway* and others, which was used in this case. Her general condition is wonderfully improved.

I am greatly indebted to Dr. H. P. Wells for the excellent photographs accompanying this report.

FUNCTIONAL SYMPTOMS IN ORGANIC DISEASES, ILLUSTRATED BY THE PRESENCE OF A BILATERAL ABDUCENS PARALYSIS IN A CASE OF TYPHOID FEVER.

By Sidney I. Schwab, M. D., of St. Louis, Missouri.

The following case is of interest, both on account of its rarity and on account of the diagnostic problem which it presents. Functional symptoms as a complication of organic diseases are becoming more and more the subject of study, and the time is long past when the presence of an organic condition casts doubt upon the purely functional character of a lesion which is seemingly anatomic in nature.

The reasoning that every nervous symptom occurring in a case of typhoid fever, for example, is due directly to the typhoid fever, is faulty for at least two reasons: first, such a symptom may have existed before the onset of the fever or may have been masked by it; second, any nervous symptom which is anatomically impossible of explanation is not made more possible by ascribing to its causation the general constitutional disease which is present. Every nervous symptom occurring in the course of an organic disease should be studied first as an isolated symptom, and then, after an attempt has been made to place it in relation with the general condition present, and this is unsuccessful, there is sufficient ground to regard the symptom as functional in origin. By functional in this connection is not meant necessarily hysterical but rather psychical. The use of distinction is evident when it is considered that a diagnosis of a hysterical symptom probably connotes a diagnosis of hysteria, and the latter ought never be made when only one evidence of its presence can be found. It must be freely admitted that there exists in what may be termed health a great many symptoms which are purely of psychical origin, and that in the presence of a definite organic disease such symptoms may continue to exist without any further anatomic basis for their appearance.

* *Medical Bulletin of Washington University*, January, 1902, page 4.

I am indebted for the following case to Dr. F. Taussig, formerly assistant superintendent of the Female Hospital, who kindly allowed me to study it in the wards of that hospital. The clinical history is very briefly as follows: Belle F., colored, aged sixteen years, was admitted to the hospital on September 25, 1900. Family and personal history negative; no venereal disease. Two weeks before, during a quarrel, she was struck in the back of the head with a brick; was unconscious several hours; the wound, a slight scalp one, was dressed and healed nicely. While bending over a tub at her home some ten days later, she felt a sudden pain in her eyes and back of the neck; she fell but remained perfectly conscious. Then followed a period of malaise and she entered the hospital. At the time of entrance her temperature chart showed a typhoid curve characteristic of the defervescent period, with a nocturnal rise of a degree or so. The evening temperature was seldom above 101°. A diagnosis of typhoid fever was made upon a positive Widal reaction together with the usual physical signs. The urine was practically normal. At the time of her entrance the eyes were the chief point of interest. There existed a complete paralysis of both external recti muscles, while the other ocular muscles, both internal and external, were perfectly normal. No movement of either eyeball outward could be obtained. Both eyes looked slightly inward. This condition continued as long as the patient was under observation. There existed then a paralysis seemingly complete of both external recti muscles, a double-sided abducens paralysis. An examination of the patient's nervous system was carefully made for the purpose of discovering any traces of hysteria; none were found. A slight linear scar in the occipital region was all that remained of the wound previously alluded to. An examination of the eyes was made by Dr. Charles on several occasions and showed, beyond the muscular symptoms before noted and a slight astigmatism, nothing abnormal.

In attempting to explain this symptom the following possibilities were considered: (1) Typhoidal neuritis of the sixth nerve; (2) Nuclear disease of both abducens due to a typhoidal encephalitis; (3) Hysterical paralysis; (4) Functional paralysis. Neuritic paralysis of the sixth nerve is not uncommon, but it is always in conjunction with a paralysis of the other ocular nerves. Unilateral paralysis of the abducens is by no means rare, but no example of an isolated bilateral paralysis of neuritic origin was found in a careful examination of the literature; nor is such a possibility even mentioned in Remak's and Flatow's "Neuritis and Polyneuritis," the latest text-book on the subject. The same objection applies to the second hypothesis. It is almost impossible to imagine that both neuclei of the sixth should be the seat of any inflammatory or traumatic process without involving some of the other neuclei which are so adjacent to it. A diagnosis of hysteria is not justifiable, for the reason that beyond this one possible symptom there was nothing that would suggest this diagnosis at all. There remains then the diagnosis, by exclusion, of a functional symptom. It is to be noted that this functional paralysis existed independently of the typhoid, and in all probability dated from the head trauma and the psychical disturbance which was then produced. This case then justifies the following conclusions: 1. Nervous symptoms may exist in the presence of an organic disease which bear no direct relation to it. 2. Such symptoms may have an origin which antedate the appearance of a constitutional affection. 3. Symptoms of an obviously inorganic origin should not be diagnosed as hysterical unless the diagnosis of hysteria is justified. 4. In the present state of our knowledge the term functional may be given to such symptoms, meaning thereby chiefly that their origin is psychical.

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EDITORIAL COMMENT.

SIDE-SADDLE VERSUS MAN'S SADDLE.

For some time there has been noticed a tendency to reform in manner of the position women sit when riding horseback. This agitation is international, and especially seems to have taken root in America, England and Germany. The question whether the new method of riding a horse straddle-fashion is superior to the old way—side-saddle—must be considered from the three standpoints of sport, esthetics and hygiene. Besides the comments that have been frequently published in newspapers and in journals devoted to outdoor sports, there has recently appeared in a medical journal a series of interesting articles bearing upon this subject. The writer of the first of these articles (*Deutsche Medizinische Wochenschrift*, 1901, No. 46), herself a woman, is decidedly in favor of retaining the side-saddle. She admits that the use of a man's saddle bestows upon the rider a more perfect control of the horse, but considers it superfluous because the majority of ladies prefer riding well-trained horses and do not take up horsemanship as a "science." On the other hand, the minority who look upon riding seriously, and are passionately attached to the sport, achieve even by the use of a lady's saddle remarkable success and suffer in no way by comparison with male riders. From an esthetic point of view, the writer claims, a woman who straddles looks undoubtedly ungraceful, and her costume is only appropriate on horseback.

As a street costume, the bifurcated skirt is diametrically opposed to good taste, and in trousers a lady would always be subjected to great embarrassment. As regards the sanitary side of the question there are great objections, according to the writer, to the man's saddle for women; the external as well as the internal genital organs are liable to injury.

These views of the writer are stoutly opposed in the two articles that follow in the series (*Deutsche Medizinische Wochenschrift*, 1901, No. 49, and 1902, No. 3), one of which is written by a physician and the other by a woman who is a leader in the woman's rights movement in Germany.

While we do not feel competent to discuss this question as it appears in the light of a sport, or as a matter of esthetics, we are justified to review the facts from a medical standpoint. This is of importance because quite often we are asked by ladies who themselves ride or whose daughters wish to ride, which position is the more sanitary. Sitting astride a horse, a position which causes the legs to be separated at an angle between sixty to seventy degrees, is not natural for a woman. There can be no doubt that the external genital organs, on account of friction and pressure, suffer from mechanical irritations which, when of long duration and frequently repeated, may give rise to deep-seated and stubborn inflammations of the mucous membranes. The advocates of the new method of riding claim that the similar position on the bicycle does not cause disturbances of this kind. But there is a marked difference between riding a wheel and a horse. While on the former the rider is securely seated in the saddle and it is only the saddle that moves on its springs, on the latter, just because the saddle is stationary, the equestrienne is jogged by each movement of the horse. This constant friction must necessarily result in an irritation of the numerous sensory nerve-endings of the external genitalia and may induce masturbation. In married women who have borne children, and in whom the internal ligaments are relaxed, the harm done may be even greater. With every jolt the uterus is thrown downward in the direction of the pelvic outlet, a factor which certainly will propagate the formation of a prolapse of uterus and vagina, especially if the pelvic floor is not intact. An additional factor is given in the increase of the intra-abdominal pressure in horseback riding, proved by the well-known experience that hernias are very often found in cavalrymen.

These disadvantages are, in our judgment, considerably lessened when the side-saddle is used. Here the friction of the external genital organs are against opposite surfaces and not against the hard saddle, and even then is sometimes intense enough to bring forth sexual desire, as has been stated by intelligent women. The fact that the pelvis is turned to the side has the further great advantage that the pressure from above is not directed on the pelvic outlet, consequently does not directly produce a descensus of vagina and uterus. The brunt of the pressure is borne by the non-elastic sides of the vagina, and especially by the unyielding bones, so that here there is sufficient counter-pressure.

From the above we arrive at the conclusion that from a medical standpoint the customary manner of riding in the side-saddle for women is the better, and that the grand total of injuries can be greatly reduced by frequently changing the position from one side to the other.

USE OF THE ST. LOUIS MEDICAL LIBRARY BY PHYSICIANS OUTSIDE THE CITY.

The idea has recently been suggested by one of those who are working hardest for the medical library, of the medical men in the vicinity of this city being afforded the facilities which that institution offers. The proposition is certainly a good one, and deserves serious consideration. To those in the immediate suburbs the library should mean much, since they are within comparatively easy reach of it, and regular visits to it would be in themselves a stimulus to the more scientific sort of work which is usually done only by those who are nearer the centers of population. The use of the library would also be of distinct value to the physician residing in a Missouri or Illinois county farther from St. Louis. For he is certainly not able in the seclusion of his own private library to work up the literature of any subject in which he may be interested; hence would be repaid for a visit to the city by the material to be found on the shelves of the library. At the same time his outlay for the trip would be more than repaid by the saving in price of books and journals, which he must otherwise purchase.

The library would at the same time profit by the increased revenue accruing from the membership fees of the men from out of town; hence, in our own selfish interest it behooves us as members to work for an object which cannot fail to improve the institution, and so increase the facilities afforded us for study and self-improvement. The various circulating lay libraries have their clientele scattered all over the counties adjacent to the point of distribution; why cannot the medical library be made just as wide in its usefulness?

TETANUS AND VACCINATION.

The recent epidemic of tetanus at Camden, New Jersey, created widespread interest in the question of this infection complicating vaccination. In that epidemic, investigation clearly showed the vaccine points used were not the carriers of the infection. Cases of tetanus have not infrequently occurred sporadically in connection with vaccination, so that medical men have a keen interest in the subject. Here in St. Louis a fatal case of tetanus occurred a few weeks ago. The tetanic symptoms began three weeks after the vaccination. The incubation period of tetanus rarely exceeds ten days, so it appears that this was a secondary infection in the wound, and not due to a vaccine point.

These and other similar experiences in various parts of the country should make the physician more and more watchful in the after-care of the vaccination wound, which, of course, is made under strict application of the laws of antisepsis and asepsis. The vaccination wound should receive the same care given other surgical wounds. The surface should be covered with a surgical gauze dressing, and not exposed to infection from shields, clothing and other sources. In this way tetanus can be excluded except through the vaccine point. We look to the manufacturer for protection against vaccine point contaminations, and the thoroughly scientific method of preparation of biologic products on the part of the various commercial firms engaged in virus manufacture certainly seems to insure against accident.

In this connection the symposium of vaccination, vaccine virus, etc., read before the New York Academy of Medicine, February 20, 1902, is of interest.

Dr. John H. Huddleston stated that tetanus has occurred indiscriminately both following the use of dry points and glycerinized virus. The most careful investigation of a large series of cases shows that no case of tetanus ever developed at a time when, according to the usual incubative period of tetanus, it would seem probable that both tetanus and vaccinia could be inoculated together.

STREET CARS AS DISTRIBUTORS OF DISEASE.

In the larger cities of this country the street car is as potent a factor in the dissemination of communicable diseases as many of those usually catalogued in the standard works of hygiene. In these larger centers of population the condition is one of an excessive number of passengers crowded into a limited number of cars. In some cities this continues throughout the entire day, and in all of them during the morning and evening hours. During the period of congested traffic the cars are crowded to the limit, every seat being occupied, and the aisles and rear platforms literally packed with all classes of our variegated population.

The ventilation of these cars is inferior, both on account of the inattention to this important matter on the part of the builders of this class of rolling stock, and also because the passengers differ so widely as to the proper temperature and circulation of air necessary to their comfort.

Tuberculosis is undoubtedly spread through the medium of these cars, which become infected by the promiscuous expectoration indulged in by consumptives notwithstanding notices of warning. Hannum, of Cleveland, recently examined twenty-five specimens of sputum found in street cars (fifteen from the interiors and ten from the rear platforms): the tubercule bacillus was present in three instances. Other specimens showed the pneumococcus and the bacillus influenzæ.

These conditions, the person-to-person contact, and the breathing of vitiated air frequently laden with contagious exhalations and with dust from dried sputum, are most favorable to the distribution of contagious diseases. Of course, it is only problematical as to the number of small-pox cases which were infected through these conditions during the recent epidemic, but it is certain that but few better opportunities of infection are offered than through the street car contact of all classes. Other transmissible diseases can be communicated in the same way.

The solution of this problem is not easy. It will require strenuous efforts on the part of health officials to bring about a better condition. Street railway companies are not inclined to relieve the present situation without compulsion. Health officers, however, have authority over the sanitation of these public conveyances. This authority in most municipalities gives sufficient power to prevent undue overcrowding of cars when such prevention would be for the protection of public health. When necessary, as in times of a general epidemic, such authority should be exercised. Under all circumstances regular disinfection of street cars should be practiced in an efficient manner. In this way the cars can be made biologically clean, and the health of the community better protected. There is just as much occasion for this procedure as there is for the disinfection of Pullman cars now energetically practiced at different points. Investigation has developed the fact that there is but one city in the country, Philadelphia, where any pretense is made of disinfection of street cars. The Union Traction

Company of that city disinfects its cars with carbolic acid. This possibly answers for the killing of bacterial life on the floors and walls of the cars, but does no good for the contaminated places where dust has settled, and which nothing but a gaseous agent would reach.

THE GERMAN EMPEROR AND CHRISTIAN SCIENCE.

The entire medical profession and such of the laity as take an interest in the defeat of mysticism and fraud are gratified by a recent announcement of the Emperor of Germany. According to the *Muenchener Mediz. Woch.*, he declared "health praying" to be a fraud unworthy of our century and the city of Berlin, and announced that individuals identifying themselves with the doings of spiritists, faith curers and similar deceivers should not be allowed to appear at court. It is expected that this attitude will have a far-reaching effect against the obscure and dangerous teachings of Christian Science.

The Emperor's announcement may appear to the hysterical followers of these fraudulent teachings in our own country as another attempt to exclude American products.

THE AMERICAN ASSOCIATION OF PATHOLOGISTS AND BACTERIOLOGISTS.

The American Association of Pathologists and Bacteriologists held the second annual meeting in Cleveland, March 28th and 29th. Although the association is young in point of age, its work thus far has been most creditable, and effectually dispels the erroneous idea prevailing in some quarters that there is little original work being done in this country along research lines in bacteriology and pathology. The work of the association for the past year has been partially published in the *Journal of Medical Research*, and its excellence has been already noted in these columns. The work presented at this second meeting is, indeed, a favorable sign that America is striving for a place among the scientific nations. We have in this country quite a number of excellent pathologists and bacteriologists. That they accomplish as much as they do is really remarkable, when we consider how little encouragement there is offered in America for scientific work. We have here no governmental chaperonage, as there is in Continental countries. There are but few places where pathologists are sufficiently remunerated for their teaching services, for instance, and there are still fewer places where opportunities for original research are at hand. In spite of these handicaps, American pathologists and bacteriologists are producing works of science that will live.

There were a number of creditable papers read at the meeting. Councilman's paper on the "Pathology of Small-pox" was interesting and instructive, representing, as it did, results obtained from fifty autopsies made during the recent epidemic in Boston. The principal finding noted by Councilman in these cases was the reduction of the polymorphonuclear leucocytes in small-pox; he also noted the constancy and severity of the secondary streptococcus invasion, and the necrosis of the testicle and bone marrow. There was also a demonstration of the gross lesions of small-pox made by Magrath and Brinckerhoff of Boston.

MEDICAL AND SURGICAL PROGRESS.

INTERNAL MEDICINE.

IN CHARGE OF

JESSE S. MYER, M. D.

Investigations of Pleuritic Fluids.—WOLFF, Berlin (*Berliner Klinische Wochenschrift*, February 10, 1902).—Pleuritic exudates have certain morphologic characters, which make it possible to draw conclusions with reference to etiology.

The prevalence of lymphocytes in the exudate (one-half or more) speaks for the tubercular character of same.

The tubercular fluids present at first a polynuclear character. They are frequently not sterile, but contain, as do other pleuritic fluids, peculiar rod-like bacteria that cannot be grown in cultures. Gradually the lymphocytes occupy the foreground. In doubtful cases a puncture should be made every eight days, in order to determine the morphologic picture.

It is usually easy to recognize a lymphocyte, but sometimes a number of methods must be brought into service. It is possible to mistake them for degenerative stages of polynuclear cells. The epithelial cells also undergo peculiar changes, which cause them to resemble the large mononuclear cells of Ehrlich. The exudates due to acute processes are differentiated from the tubercular through the character of their morphologic products.

Bleeding—A Critical Historical Essay Concerning the Development of the Question During the Last Decade.—STRUBELL, Vienna (*Centralblatt fuer die Grenzgebiete der Medizin und Chirurgie*, Nos. 1, 2, 3, 4, 5, 1902), gives a most comprehensive review of the literature on bleeding, together with the references. After taking up the discussion of the subject in a general way, it is considered with reference to its special indications. Bleedings in chlorosis, poisons, eclampsia, uremia, pneumonia, circulatory disturbances, and in children, are all comprehensively dealt with. The thoroughness of the work is evinced by the collection together of one hundred and seventy literature references, each of which is taken up in turn and critically dealt with.

An Artificial Esophagus.—SPIEGEL, Vienna (*Berliner Klinische Wochenschrift*, February 3, 1902), reasoning that the esophagus is purely a tube of transmission from the mouth to the stomach, and has nothing to do with digestion, maintains that it is possible to supply a tube which will take the place of the esophagus when obliterated or strictured. This he would accomplish by introducing a tube into the upper part of the esophagus, just above the clavicle, and connecting it with a gastric fistula. The tube passes over the sternum and can be removed when desired. A special device is arranged for imitating the peristaltic action of deglutition. Aside from the importance of oral stimulation for the gastric secretions, the artificial esophagus has a pronounced psychic influence upon the patient, enabling him to taste and swallow his food.

Thyroiditis Complicating Typhoid Fever.—ROBERTSON (*Pennsylvania Med. Jour.*, January, 1902) reviews the literature, and points out the great rarity of thyroiditis excepting in localities where goitre is endemic.

The author's case occurred in a man forty-two years of age, so far advanced in convalescence as to have reached a normal temperature. He began to complain of difficulty in swallowing. The thyroid became enlarged, especially the

right lobe. It was quite tender on palpation, giving a sense of semi-fluctuation. He had a slight chill, the temperature rose, there was dysphagia and a feeling of constriction about the throat. After a troublesome period of ten days the process terminated in resolution.

The Detection of Typhoid Bacilli in the Feces as a Diagnostic Test of Typhoid Fever, and a Comparison of this Test with the Widal Reaction.—HIGBY (*Medical News*, No. 13, 1902) attributes the unsatisfactory results obtained by many in the employment of the Widal reaction to faulty technic. He makes a comparative summary of the results attained in twenty-one cases in which both the Widal reaction and the isolation method of Hiss were used. The typhoid bacilli were isolated from the feces in twenty of these, while the Widal was positive in but eighteen. The average day on which isolation of the bacilli was possible in eighteen cases was the tenth, while in fifteen cases in which the Widal was positive, the average day of its first appearance was the twelfth. Both of these procedures, when used in combination, make possible the establishment of a diagnosis of typhoid fever in many instances before this could be accomplished by purely clinical observations. In only three of these cases did the appearance of the roseola render the diagnosis positive before it had been established by one of these methods.

By the use of the Hiss isolation method, especially with the substitution of the new plating medium, the detection and isolation of typhoid bacilli are, to one familiar with bacteriological methods, simple, reliable, and practical.

Isolation of Bacillus Typhosus from Unusual Localizations—Cholecystitis, Meningitis and a Five-Months' Fetus.—MCDANIEL (*Journal American Medical Ass'n*, February 15, 1902) reports three cases of typhoid fever in which the typhoid bacillus was isolated from unusual localizations.

The first patient developed a severe pain in the right hypochondrium on the eighth day. This gradually increased in severity and became intermittent in character. On the twelveth day a tumor, four to five inches in diameter, developed just below the liver. Blood count showed 18,500 leucocytes. On the seventeenth day cholecystotomy was performed. The gall bladder was distended with a mucoid fluid which contained bacilli identical with typhoid bacilli.

The second case was one in which the patient, while convalescent, developed meningitis and died. The autopsy showed an extensive purulent inflammation of the cerebral meninges. A bacteriologic examination showed this to be a meningitis due to unmixed infection with the bacillus typhosus.

In the third case the mother aborted one week after the beginning of convalescence of typhoid fever. The Widal reaction was positive in the blood of both mother and fetus. From the spleen, liver and peritoneal fluid was isolated an organism which presented all the characteristics of the bacillus typhosus with the exception that it formed gas in media containing dextrose. Three other organisms were found differing in other particulars from the typhoid bacillus. The author suggests that the first bacillus is the typhoid bacillus which has undergone some modification in the fetus whereby ability to produce gas from dextrose was acquired.

Remarks Upon Some Experiences with the Widal Reaction.—LIBMAN (*Medical News*, March 29, 1902) concludes from his observations of the Widal reaction that a positive reaction always means that typhoid fever is or has been present. Partial reactions are to be entirely ignored. A negative reaction does not exclude the existence of typhoid. The reaction may have disappeared; it may appear later; the culture may be at fault, or it may be one of those cases of typhoid in which the reaction does not appear.

The Widal reaction is of the greatest value in establishing the diagnosis in atypical cases.

Adrenal Substance in the Intestinal Hemorrhage of Typhoid Fever.—Coleman (*Medical News*, March 29, 1902), prompted by the splendid results given by adrenalin in controlling various forms of hemorrhage, administered it in five cases of typhoid fever.

Four of these cases recovered, and one died. The hemorrhage in two of the cases especially was quite severe. Fifteen-grain doses were administered three times daily. The author recommends that five-grain powders be kept constantly on hand in cases of typhoid fever, and that the nurse be instructed to administer them upon the first appearance of blood in the stools.

SURGERY.

IN CHARGE OF

WILLARD BARTLETT, M. D.

Extensive Symmetrical Spontaneous Gangrene of the Lower Extremities.—De Rouville and Soubeyran (*Archives Provinciales de Chirurgie*, January 1, 1902).—Such cases are certainly not common, especially those on which the double amputation is done and withstood. The patient in question, a man of thirty-eight, was taken ill with vomiting, and on the next day noticed a peculiar involvement of his legs. After severe cramps for a time they grew very white and cold, after which he lost sensation in both. Two days later there appeared greenish spots, which gradually deepened in color and became more extensive until the fifth day, on which he entered the ward. Arterial pulsation could not be felt, while there was still some venous return; sensation had been entirely lost in the affected areas, and there was absence of voluntary motion. The condition deepened into one of complete gangrene, so that at the end of one month one member was amputated, and at the expiration of three weeks more the other as well. The patient up to this time had fever, rapid pulse, and manifested in various ways a decided intoxication. The disease had for its basis arteriosclerosis, as was proven by the examination of the vessels in the amputated portions. The authors report from the literature sixteen similar cases. In conclusion, it is urged that separate amputation of the two extremities is usually best, and that where possible to wait, this is to be done secondarily in healthy tissue.

Subcutaneous Intraperitoneal Injury of the Kidney.—De Quervain (*Deutsche Zeitschrift fuer Chirurgie*, Bd. 62, Hft. 2 und 3).—The histories of two of the writer's own cases are related, and he quotes a large number of interesting facts from the literature of the subject. The first case was that of a boy eight years of age who had been run over and rolled along by a very heavy sled. There was no blood in the urine, and the absence of any distinctively pathognomonic symptoms made a definite diagnosis a very hard matter. At the operation blood was found in the peritoneal cavity, and this membrane, as well as the fat beneath it, was torn down to the substance of the right kidney. Still there was no urine in the cavity, and after a pack the child made a perfect recovery.

In the second case a boy of fourteen was run over by a horse going at full speed. In a short time blood in large quantities appeared in the urine, but there were no peritoneal symptoms, though an extensive dull area appeared in the region of the right kidney and up toward the axilla. In this instance no operation was performed, and the patient eventually made a good recovery. The prognosis of intraperitoneal rupture of the kidney is very bad, as far as one can learn from the various authorities; still the animal experiments made by our author do not go to substantiate the truth of this

A Case of Severe and Threatening Hematuria from a Movable Kidney.—CABOT (*Boston Medical and Surgical Journal*, March 6, 1902).—The explanation for this rare phenomenon as given by the author is that the kidney, hanging from its attachments, was greatly congested, so the bleeding. This theoretical deduction was further proven by a practical observation. The patient was placed in bed with the foot elevated and after a short time the bleeding almost ceased, to begin again as soon as the upright position was resumed. Finally an operation was performed, the organ being sutured in place, and since that time the patient has experienced no further trouble.

The Diagnosis of Tuberculosis of the Peritoneum in Children.—KISSEL (*Archiv. fuer Klinische Chirurgie*, Langenbeck's, Bd. 65, Hft. 2).—In many cases the diagnosis may be difficult, though in early stages, even when a fold of the abdominal wall is grasped, the peritoneum can be ascertained to be thickened, rough and sensitive. The author gives a record of fifty-four cases with thirty-five laparotomies performed. Out of eighteen cases which came to autopsy twelve were found to be suffering from a similar affection of the lungs or pleura, or of both together. The discovery of pleural tuberculosis by aspiration is of value in the diagnosis of a case of suspected peritoneal disease of like origin. Peritoneal tuberculosis may be difficult to differentiate from suppurative peritonitis, appendicitis, chronic intestinal obstruction or sometimes from the ascites which complicates cirrhosis of cardiac origin. Of the author's thirty-five patients subjected to laparotomy twenty-seven were completely cured. (That is seventy-seven per cent., or decidedly better than the sixty-five per cent. of Koenig or the seventy per cent. of other writers of more recent date.—Reviewer.) It may be said that almost every spontaneous peritonitis is of tuberculous origin; further, the disease seldom has a stormy onset.

The Treatment of Acute General Peritonitis.—SMITH (*American Medicine*, March 1, 1902).—The chief feature of the author's practice is the flushing of the cavity with normal (he probably means physiological) saline solution. This he introduces at a temperature of 100 degrees, and leaves as much behind as the abdomen will contain without tension. His patients have, most of them, left the table with better temperature, pulse and respiration than when they went on. He drains after operation with tubes and gauze wicks. Out of twelve such cases he has lost but four, certainly a fine record; and it is to call attention to this fact that the abstract appears, and not because there is anything original in the author's methods. Smith counsels operation even in cases which may at first appear to be hopeless, saying that success may often exceed the surgeon's anticipations.

The Position of the Patient in Operations About the Head and Neck.—MORESTIN (*Gazette des Hopitaux*, February 20, 1902).—The author first mentions favorably the position of Rose (hanging head), and then goes on to remark that a disagreeable and dangerous offset to its advantages is that the hemorrhage is always more than if the head were on a level with the body or higher than the same. Where the head is elevated and turned to the side a double advantage is gained; gravitation favors hemostasis, and at the same time the great vessels in the neck are partly compressed by the twisted muscles. So bleeding is lessened, and at the same time the triangles of the neck can be much more easily mapped out than in any other position. Morestin has devised a table which favors the use of the position mentioned. The article is illustrated to bring out the point.

The Operative Treatment of Gangrene of the Lung.—LENHARTZ (*Mitteilungen aus den Grenzbieten der Medizin und Chirurgie*, Bd. 9, Hft. 3).—The author has done twenty-three operations of this kind; eleven of the number of patients were

cured while twelve died. In such cases a rapid improvement is to be expected, else all is lost; especially noteworthy was the sudden and permanent improvement in the odor emanating from those on whom the author operated. Post-mortem examination of those who were cured by operation (and died from other causes later) showed that no trace could be found of the large defect which had been produced in the lung in consequence of disease and operation. As regards the diagnosis, Lehnhartz says the surgeon must determine the size, shape, location and number of the foci on which he is to operate. No definite rule can be laid down as to the treatment of the pleura in all cases; in some a primary operation is better, while in others a secondary procedure is to be preferred. In gangrene, the pleura is less frequently affected than one might expect.

The Treatment of Malignant Growths by the X-Ray.—MORTON (*Medical Record*, March 8, 1902.)—The author relates the histories of several cases which are interesting to say the least. The first was that of a patient whose arm had been amputated for a small celled sarcoma at the elbow, the growth having recurred higher up. Great improvement followed the treatment with X-rays, and the patient continues to do well up to date. A like result followed the application of this therapeutic agent to four cases of wide-spread and inoperable cancers of the breast; the condition of these patients having been pitiable in the extreme. Pain disappeared in a stomach case immediately after the first treatment, and improvement in other directions has been marked. Disappearance of the original lesions and softening of diseased lymphatic nodes occurred when this treatment was applied to an epithelioma of the face. In all of these cases relief from pain has been a constant and early manifestation; this is supposed by the author to be due to what he calls benumbing the nerves. Protoplasmic activity, especially in the new cells, is likewise benumbed as he says. The depth at which a growth lies has of course much to do with the matter, because a more intense light can be thrown on a tumor which lies exposed, where healthy covering tissues do not have to be protected.

Stab-Wound of the Pancreas Healed by Deep Suture.—KUETTNER (*Beitraege zur Klinische Chirurgie*, Bd. 32, Hft. 1).—This case is the only one on record like it; one other having been treated in like manner for gunshot wound, however. Fifteen minutes after the man was stabbed he was laid on the operating table, when it was seen that he was bleeding profusely from a large abdominal wound as well as vomiting. There was a prolapse of stomach, large and small intestine, and from the former the contents poured through a large opening, soiling the entire field. The ligamentum hapatogastricum had been split, and through the rent it was seen that the pancreas had been almost cut in two. Profuse bleeding from the latter was arrested by the insertion of three cat-gut ligatures through the parenchyma, and the adjacent spaces were packed. The stomach wound, 9 cm. in length, was sutured as was part of that in the abdominal wall; this latter being fourteen cm. long. On the twelfth day the patient had a chill, and then high fever, still he was up on the eighteenth day and resumed his customary work on the expiration of the tenth week. The author remarks that it is impossible to wound the pancreas alone, on account of its position and relation to other objects. It is not definitely determined what the effect of pancreas juice is upon the peritoneum; still the fact remains that most cases die in which this viscus has been cut open.

A Case of Ascites Due to Cardiac Cirrhosis, Treated by Transplanting the Omentum Between the Peritoneum and Abdominal Wall.—ROE and SPENCER (*Philadelphia Medical Journal*, March 1, 1902).—Before the operation this woman could not come down stairs, but after the same she was able to do her housework. She went on in pretty good condition for six months before she again

reached the state in which the operation had found her. Eight months after the procedure she died and there were found to be fibrous adhesions between the abdominal wall and the stomach, small intestine and omentum; in each of these there were large veins. So the operation had brought about a condition, anatomically speaking, which favored the object sought; at the same time it had prolonged the patient's life about six months.

Inguino-Interstitial Hernia and its Radical Cure.—BERGER (*Revue de Chirurgie*, January, 1902).—In these cases there are two objects to be attained: (*a*) the disposition of the testicle; (*b*) the cure of the hernia. The anatomical condition which makes such an anomaly possible is the absence of the external inguinal ring, and in such cases the testicle is of course incompletely descended. Berger reports fourteen such instances, of which eight are in women; in only one such did he, however, have an opportunity to perform the operation which he has designed to permanently repair the abdominal wall. The sack has in these individuals a peculiar and characteristic contour; first, it follows down the course of the inguinal canal for a certain distance, and then gives off a prolongation which runs upward and outward, in many instances as far as the anterior superior spinous process of the ilium. It has usually been claimed that the sack lies immediately beneath the aponeurosis of the external oblique, but the author advances substantial proofs of the fact that he has often seen it between the transversalis and internal oblique muscles. The article next takes up at great length all the various anatomical peculiarities which the condition may show, not forgetting to mention the effect of muscular atrophy on the matter of radical cure. Berger's operation consists of the following essential steps: 1, suture of the internal oblique muscle to Poupart's ligament, beneath the cord; 2, suture of the rectus muscle and its posterior sheath to the same ligament (over the cord); 3, suture of the outer portion of the aponeurosis to the anterior sheath of the rectus; 4, suture together of the two lips of the incision in the aponeurosis.

Suprapubic Cystoscopic Examination.—KRASKE (*Centralblatt fuer Chirurgie*, February 8, 1902).—In two cases the author was unable to introduce the instrument by way of the urethra, on account of prostatic carcinoma in the one and on account of myoma of the bladder in the other. However, he was able to see the interior of the viscus and further to see so great an extent of it, by the suprapubic route, that he considers the method worthy of a special consideration. He suggests that it be used in the following way, viz.: that the bladder be punctured and then the cystoscope be introduced through the canula, either at once or after the opening has been dilated at a later period.

Median Perineal Prostatectomy.—FERGUSON (*Journal of the American Medical Association*, February 22, 1902).—The author's technique is as follows: He introduces one finger into the rectum and a "depressor" into the bladder, then cuts through the perineum down to the prostatic capsule. From this the soft coverings are bluntly dissected, a side and a cross incision made into it. Then with the finger and a biting forceps the prostate is removed out of its capsule and a drainage tube introduced into the bladder through the opening which has necessarily been made in the prostatic urethra. Six cases are reported by Ferguson, all of which were completely cured. He concludes by reciting what appear to be plausible reasons for the superiority of the method over any suprapubic method as well as over the combined one.

Embolism of the Superior Mesenteric Artery.—SIEVERS (*Berliner Klin. Wochenschrift*, March 3, 1902).—There is related the case of a woman who died of this affection, twenty-nine hours after the first symptom, a severe colic, which came on while at stool. There were the usual manifestations of a severe abdominal

disturbance, but none which could be considered pathognomonic of the disease which now occupies our attention. At the autopsy was found an aneurism of the thoracic aorta, and in the superior mesenteric artery, just after it left the aorta, a long embolus which could easily be displaced. In consequence of this last named, the greater portion of the intestines had become injected and edematous, palpably the results of defective arterial supply. The author concludes by giving a critical *resume* of the work which has been done on this subject.

On Splanchnoptosis and its Surgical Treatment.—Ingalls (*Annals of Surgery*, March, 1902).—The author takes up at some length the causes and symptoms of the disease, and then proceeds to relate the history of a case upon which he operated. The patient was a woman of thirty, she had been a sufferer for about eight years, the symptoms having been controlled by supporting the abdomen in the beginning. A most exhaustive history of the case is given, and the operation described. The latter consisted in shortening the ligaments which suspend the liver; after which the woman was placed in bed for six weeks. A bandage was worn for three months subsequently, and at the end of this time the patient seemed greatly improved; however, as the time wore on she experienced a return of obscure abdominal symptoms, and while the author seems to regard his patient as benefited, still the reviewer cannot, after reading the original report, bring himself to unqualifiedly support the method.

Thoracic Resection for a Recurring Chondro-Fibroma of the Eighth Rib.—Le Dentu (*Bulletins et Memoires de la Societe de Chirurgie de Paris*, Tome xxviii, No. 7).—The mass was as large as a hen's egg, with no pleural symptoms or attachment to the skin. It had been removed once with preservation of the pleura, so a more radical operation was advised. On account of the extent of the growth by this time, it was necessary to resect two ribs with a large amount of their integument and pleura. It was impossible to bring the lung or diaphragm out far enough to close the opening, so the author contented himself with sewing muscle and skin over it, and then drained the cavity. There was a dangerous degree of cyanosis on widely opening the chest cavity, and the patient contracted a double pneumonia, to which he succumbed shortly after the operation.

The Results of Operations for Tumor of the Superior Maxilla, Performed in the Clinic of Bergmann.—(*Archir fuer Klinische Chirurgie* (Langenbeck's), Bd. 65, Hft. 2.)—From 1890 to 1900 one hundred and eighteen of these cases were treated in the great clinic at Berlin, and of these fifty-three were cancerous. It was noted that men come to the surgeon much later than women, hence of the thirty-one cases which were refused as inoperable, it is not surprising that the greater number were males. The chief immediate danger to life from the operation can be easily shown to be pneumonia superinduced by chloroform or other general anesthetics and aspiration. This danger is greatly decreased by preliminary ligation of the external carotid and by using Rose's hanging position of the head in operating. The ligation is to be performed between the superior thyroid and lingual, else collateral circulation and profuse hemorrhage may be set up in a few minutes. The immediate mortality of total resection (forty-seven cases) at Bergmann's has been 14.8 per cent., while but seven of the patients have been permanently cured. They had thirteen cancer cases, ten of which succumbed to a recurrence and three to exhaustion. While of eleven sarcomas, six are definitely free from such complication; in addition, one osteoma may be reckoned among the seven out of forty-seven who were saved by total resection.

Traumatic Rupture of the Gall-Bladder without Injury of the Liver.—Willard (*New York Medical Journal*, March 1, 1902).—The patient, a boy of five years, had been run over by a heavy wagon, the wheels having passed over the pelvis.

At the time he was seen, three months later, the entire right side of the abdomen was filled with an elastic mass, which presented the usual physical signs of a fluid collection. The stools were of a characteristic clay color, so one is not surprised to learn that the fluid above mentioned was found, on opening the abdomen, to be bile. Two weeks later one quart more had collected, but after it was liberated no further reaccumulation took place, and the stools resumed the natural appearance. The child's nutrition rapidly improved, and he was entirely cured in a few months. The article concludes with a *resume* of the cases of this class which have been reported.

The Surgical Treatment of Lung Diseases.—Garre (*Mitteilungen aus den Grenzgebeiten der Medizin und Chirurgie*, Bd. 9, Hft. 3).—The artificial pneumo-thorax which must complicate a pulmonary operation, on a case where no adhesions are found, is not to be regarded as an exceedingly serious matter in all cases. Of course, one lung is entirely collapsed, where the pleura is widely open; and at the same time the mediastinum is pressed to the healthy side, so that the other lung can also not functionate well; hence, dyspnea and cardiac collapse may set in. It is important to know that these physiological phenomena do not occur when the pleural opening is smaller than the lumen of the patient's larynx. When the process is localized, we may treat surgically tuberculosis, actinomycosis, abscess, gangrene, bronchiectasis, echinococcus, tumors. Next the author takes up the technique of pulmonary operations in general, giving the details of thorocotomy, pleurotomy and pneumotomy or resection. The results in tuberculous affections have not been very gratifying; actinomycosis has been treated surgically eight times, but we are not told with what success. A large per cent. of all abscesses treated in this manner have been cured, while but eighty of one hundred and twenty-two cases of gangrene have resulted similarly. Some considerable good has been done in bronchiectasis, though it is difficult to say just how much; echinococcus has, on the other hand, given almost uniformly satisfactory results. The author concludes that the lung surgery has come to stay, and has brought with it one of the greatest of the modern advances in our science.

The Operative Treatment of Chronic Bright's Disease.—Primrose (*The Canadian Journal of Medicine and Surgery*, March, 1902).—A critical case was operated upon by splitting the capsule of the kidney, the operation being performed on both sides, but at two sittings. As a consequence, the amount of urine increased, the albumin almost disappeared, and edema and ascites were beneficially influenced. Sixty-two days after the last operation the patient was much better in every particular than formerly. The author does not offer any original explanation for what he terms a strange and wonderful result, referring merely to what Harrison and others have written on this subject.

The Treatment of Lymphatic Tuberculosis.—Willems (*Journal de Chirurgie et Annals de la Societe belge de Chirurgie*, January–February, 1902).—The method of treatment proposed by the author is essentially different from those usually urged in such cases. The chief aim should be to cause as little scarring as possible, and Willems considers that his method accomplishes a cure and still subserves this end. He mentions the desirability of giving such patients the benefit of sea air where it is possible, but does not by any means make this a condition to his treatment. Before caseation has occurred, these masses can be made to shrink and often disappear by simply keeping the neck painted for a time with iodoform collodium. Where breaking down has commenced and extirpation is not undertaken, the author is not in favor of injection of the nodes; on the contrary, he urges the puncture and introduction of a small rubber tube into each soft center. This is left in place under dry dressing for about four weeks as a rule, and by proper antiseptic treatment of the skin a mixed infection prevented.

THERAPEUTICS.

IN CHARGE OF

ALBERT E. TAUSSIG, M. D.

Notes on the Treatment of Syphilis.—W. A. HARDAWAY (*Med. Bull. of Washington University*, Vol. i., No. 1).—Prof. Hardaway deprecates the too common routine use of mercury and the iodides in all cases of syphilis. The continuous treatment of syphilis for months and years is not good practice and does not justify the name given it, viz., the "tonic treatment." In addition to the debilitating effect of the syphilitic poison itself on the system, the prolonged use of mercury often does great harm. A low grade of mercurialization is produced, which has no power at all over syphilis, since its lesions appear even while the patient is taking the drug regularly. This mercurialization, moreover, tends to lower the patient's vitality and impair his nutrition, so that we can accomplish very little by means of the specific treatment until the patient's general health has been improved. In such cases the administration of mercury or the iodides should be preceded by a roborant course of tonics and stomachics, and the employment of judicious hygienic regulations. Dr. Hardaway has found the following formula for giving iodide of potassium (attributed to the elder Bulkley) useful:

℞ Potassii iodidi ..... ℥ ss
Ferri et ammonii citratis ..... ʒ j
Tr. nucis vomicæ ..... ♏ xij
Aquæ ..... ℥ iss
Tr. cinchonæ comp ..... q. s. ad ℥ iv
M. Sig.—Teaspoonful in one-fourth glass of water after meals. The elixir of calisaya may be used instead of cinchona.

The Treatment of Obesity.—W. EBSTEIN (*Die Heilkunde*, No. 2, 1902).—Whatever method we may choose of reducing a patient's fat, it is essential that the total amount of nourishment absorbed be less than the total amount of tissue-waste. This cannot be accomplished alone either by a diminution of the former nor by an increase of the latter, but only by a judicious combination of both. Banting proved this drastically in his own case. Violent physical exercise produced a corresponding increase in his appetite, and when he yielded to the latter he grew no thinner. Increased muscular activity produces a loss in weight only when the body substance thereby consumed is not entirely replaced. Ebstein recommends for the obese only such moderate exercise as will not be too great a strain on the usually weakened heart, and as will be of such a nature that it can be continued steadily for months and years. Stout people who go to the mountains and there indulge in climbing and other violent exercise may very well lose some twenty pounds in weight. But they return tired and worn-out, and after a little rest has brought their old appetite back, they soon regain the fat they have lost. Out-of-door "turning," such as the Germans are particularly fond of, is strongly recommended by the author, as are also walking when carefully regulated according to the endurance of the individual, and gardening. Doubtless if he were an Anglo-Saxon he would find much of which to approve in golf. Bicycling he absolutely forbids, doubtless owing to the wheelman's constant temptation to indulge in this form of exercise to excess.

As regards the diet, Ebstein advises particularly the withdrawal of carbohydrates. The proteids are not only an essential portion of our food, but have a comparatively slight tendency to form fats. Fats themselves have the valuable property of satiating rapidly, so that a meal of which they form a part produces a feeling of having eaten enough far more rapidly than one from which they are excluded. A patient whose total amount of food is reduced by means of the par-

tial withdrawal of carbohydrates, can be made to feel that he is getting plenty to eat far more readily than one from whose diet list the fats are withdrawn. His regimen, Ebstein maintains, can be persisted in for years with absolute comfort to the patient, so that after the latter has slowly, but steadily, lost sufficient weight, the reduction can be permanently maintained. He does not entirely discard hydrotherapeutic measures, but considers them unimportant in comparison with moderate exercise and diet. The diminution of the water drunk he believes to be a useless torture. He has never obtained any satisfactory results from the use of thyroid preparations or of the various mineral waters.

As regards the details of his regimen, he forbids entirely foods very rich in carbohydrates, such as sugar, potatoes, dumplings, puddings and the like, very sweet preserves and fruits. The true gourmand usually does not care for these articles at all. Of course the carbohydrates are not absolutely excluded. The green vegetables and lettuce, which not only quickly produce repletion, but which are excellent vehicles for the administration of fats, are freely made use of. The ordinary bread is, so far as possible, replaced by bread made from vegetable proteid, such as aleuronat or from casein. The former can be directly used in place of flour; for the method of using the latter, described in some detail, the reader must be referred to the original article.

It goes without saying, that a strict individualization is necessary. Some individuals can endure the withdrawal of carbohydrates far more readily and more completely than others. A sample dietary may be not without interest. The patient was a man forty-four years old, very stout, leading an active but mostly indoor life, using alcohol moderately, but very fond of carbohydrates and sweets. He was made to take moderate out-of-door exercise, and on Sundays a walk several hours in duration. During his summer vacation at the seaside or in the mountains he led a somewhat more active life. The diet list was as follows:

1. *Breakfast:* One large cup, about 250 c.c., of black tea without milk or sugar; 50 g. white or rye bread, toasted, with 20–30 g. butter.

2. *Dinner:* Bouillon, often containing lumps of marrow or an egg; 120–180 g. boiled or fried meat—particularly, in so far as they agreed with him, fat meats; vegetables as described above; salads, occasionally apple-sauce or a baked apple or dried fruit, stewed or otherwise prepared, but without sugar; for dessert he took usually raw fruit, preferably apples, but also strawberries and cherries; during the meal he drank two or three glasses of a light hock.

Soon after dinner: A large cup—about 250 c.c.—of black tea without sugar.

3. *Supper:* A cup of black tea as above; an egg or some roast meat, preferably fat, or some ham with its fat, or some cervelat sausage, or fish smoked or fresh—altogether 75–80 g. of meat; about 30 g. white bread and, according to the amount of fat in his meat, more or less butter, at most 15–20 g.; occasionally a little cheese and some fresh or stewed dried fruit.

The effect of this regimen was striking. Within six months he lost twenty pounds in weight and his girth diminished 16 cm. This loss has been permanent.

Individual variations to the above dietary will readily suggest themselves. If the regimen is as efficient and as pleasant as Ebstein says, it is well worth a trial.

Hydrotherapy of Insomnia.—A. LAQUEUR (*Die Heilkunde*, 1901, No. 12).—When hydrotherapeutic measures are to be used shortly before bedtime, for the purpose of inducing sleep, everything that would tend to excite the patient must be avoided, and only the soothing methods of using water should be employed. One of the most useful procedures is the wet pack. The patient is wrapped from neck to feet in a sheet wet with cold water and then covered with a woolen blanket. In order to avoid cerebral congestion cold compresses, an ice-bag or a Winternitz cap are applied to the head. If the patient goes to sleep he may very

well remain in the pack all night; otherwise the pack is removed in three-quarters of an hour, but may be renewed. After removing the pack anything that would chill the patient must be avoided, as that would tend to excite the patient and would tend to counteract the soothing effect of the pack. This procedure is particularly indicated in the insomnia of neurasthenia, anemia, cachexia, general malnutrition and in febrile conditions. Many nervous individuals, however, do not bear this treatment well, since the sensation of being tightly bound down produces a feeling of oppression and excites them. In such cases it is better to have the pack extend upwards only to the axilla, and to wrap the upper portion of the thorax and the shoulders in a separate wet cloth held in place by a figure of eight bandage, so that the arms remain free.

In many cases, however, the cold pack fails to produce the desired results and we may then make use of the prolonged lukewarm or warm bath, which probably is our most efficient means of combating insomnia. The patient is entirely immersed to the neck in water having a temperature of from 92 to 98° F. for from fifteen to thirty minutes. The bath is usually given soon before the patient desires to go to sleep, but may be given several hours earlier provided the patient goes to bed immediately after the bath, or at least remains perfectly quiet. The author has found such baths particularly useful in insomnia due to neurasthenia, hysteria, chlorosis, etc. They may be replaced by prolonged lukewarm sitz baths, especially in cases of prolonged sexual excitability. For the local applications of heat and cold, which are discussed in some detail, the reader must be referred to the original article.

The Potato Cure of Diabetes.—M. Mosse (*Bull. Gen. de Therapeutique*, 1902, No. 7).—At the meeting of the Societe de Therapeutique, held at Paris on the 12th of February of this year, M. Mosse read a very interesting paper on the use of potatoes in diabetes. That diabetics could consume a certain quantity of potatoes without injury has frequently been observed; even Dujardin-Beaumetz found this to be the case. Mosse, however, held not only that potatoes could be taken with impunity in this disease, but that they have a genuine curative activity. He began by feeding his patients, in addition to a proteid and fat diet, one pound of potatoes daily, rapidly increasing the amount consumed to four pounds, and in one case even to the astounding quantity of six pounds daily. In all of his twenty-four cases he saw the amount of sugar diminish, in some of them almost to the vanishing point. The patients, meanwhile, improved strikingly, both subjectively and objectively. In one case an ulcer, which had obstinately resisted all treatment, healed promptly under this regimen; in another, which he saw in consultation with the surgeon Cestan, the glycosuria, which had been excessive, disappeared completely and the patient underwent successfully a capital operation.

These results, if true, are certainly surprising. After all, three pounds of potatoes represent nearly three-fifths of a pound of sugar, and six pounds of potatoes considerably over a pound of sugar. If such quantities of glucose can be ingested by a diabetic, not only without injury but with actual benefit, then many of our ideas concerning diabetes require revision. Mosse ascribes the therapeutic effect of potatoes to the potassium they contain. This theory does not seem rational, since inorganic salts of potassium, while sometimes of benefit in diabetes, produce no such striking results. The therapeutic value of potatoes could be demonstrated beyond question only if the amount of sugar excreted by a patient under a strict carbohydrate-free regimen should be found to be still further reduced by the addition of potatoes to his dietary. This Mosse has failed to do. At all events, if Mosse's results are even partially confirmed, it would seem that we need never put our diabetic patients under a strict carbohydrate-free diet, which is so often followed by ill after-effects, besides being a torture to the patient, but may feed them potatoes with considerable freedom.

PATHOLOGY AND BACTERIOLOGY.

IN CHARGE OF

R. B. H. GRADWOHL, M. D.

"Hanging Block" Preparations for the Microscopic Observation of Developing Bacteria.—HIBBERT WINSLOW HILL (*The Journal of Medical Research*, March, 1902).—The microscopic observation of the growth and development of the individual bacterium has been much neglected. Cultural observations are perused to the exclusion of this important method of studying bacteria. Exclusive study of morphologic characteristics of bacteria have been confined to examinations of stained preparations, which parallels the exclusive study of museum specimens of the higher plants. No botanist could rest content with such a method of studying plants.

Hill gives a description of his method of studying the hanging block specimen. The technique consists briefly in substituting for the ordinary "hanging drop" of liquid or jelly a cube of solidified agar, on the surface of which the bacteria are distributed. The inoculated surface of this block is applied to the under surface of the coverslip, and for convenience is then known as the "hanging block." Oxygen reaches the bacteria through the block or the seal by diffusion—certainly aerobic bacteria like B. diphtheriæ, or B. typhosus, grow readily in such a preparation. For anaerobes it is sufficient to expose the block to the action of pyrogallol as described later on in the article. This method is applicable to both motile and non-motile forms.

To make the preparation, pour melted nutrient agar ino a Petri dish to the depth of one-eighth to one-quarter of an inch. Cool this agar and cut from it a block about one-quarter inch to one-third inch square, of the thickness of the agar layer in the dish. This block has a smooth upper and under surface. Place it, under surface down, on a slide and protect it from dust. Prepare an emulsion in sterile water of the organism to be examined, if it has been grown on a solid medium, or use a broth culture; spread the emulsion or broth upon the upper surface of the block, as in making an ordinary coverslip preparation.

Place the slide and block in a 37° C. incubator for five or ten minutes to dry. Then lay a clean coverslip on the inoculated surface, avoiding air bubbles. Run a platinum loop laden with melted agar around the block, to make a seal, preventing slipping of the block. Dry in the incubator five minutes to harden the seal. Invert this preparation over a moist chamber and seal with white paraffin. Bacteria growing at room temperature can be observed without a warming stage. For bacteria growing at 37° C. it is necessary to use a warm stage. Hill has devised several warm stages which are quite good and possess the good quality of being cheap.

Distribution of Anopheles in the Vicinity of Baltimore.—LEONARD K. HIRSHBERG and GUSTAVUS C. DOHME (*Johns Hopkins Hospital Bulletin*, February-March, 1902).—In the spring of 1901, at the suggestion of Doctor Thayer, these observers undertook a study of the distribution of anopheles in the vicinity of Baltimore. Thayer and Lazear had already found anopheles in one of the suburbs of Baltimore, Sparrows' Point, in 1899. The larvæ had never been found. It was found that a line could be drawn across the city, above and to the west of which the larvæ of the anopheles maculipennis were rarely found, and below and to the eastward of which few anopheles punctipennis were ever taken. The larvæ of anopheles maculipennis were first obtained on June 20th; the larvæ of anopheles punctipennis appeared first about the middle of July. The larvæ were captured throughout the summer until October in the backwater of the Chesapeake

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The Identification of the Colon Bacillus by Reactions Produced in Culture Media Containing Neutral Red. Observations on Reactions of Other Bacteria on the Same Media.—Russell H. Boyd (*The Philadelphia Medical Journal*, March 7, 1903).—It has been stated by several authorities that neutral red agar is a good medium for differentiating the bacillus coli communis from the bacillus typhosus. It has been claimed by Kruse-Petri and Hueppe that the bacillus coli communis upon this medium produces a fluorescence and that the medium is turned to a yellow color, nearly a canary yellow.

Neutral red is a basic color. The term "neutral" refers to the hue of the solution, and not to its chemical composition. Its normal hue is turned to bright red by acids and yellow by alkalies.

Hueppe claims that the bacillus coli communis and a few other organisms possess the power of reducing neutral red to a canary yellow fluorescent color, and that the bacillus typhosus never possesses the power of reduction. He claims to distinguish the typhoid group from the colon group in this way.

Proskauer tried this reaction on a number of known cultures of the colon bacillus from different sources, and also tested it on other bacteria. He used ordinary agar with the addition of five drops of a watery solution of the dye to each tube containing 10 c.c. of neutral agar. He found that he could not obtain as positive reactions as those obtained by Hueppe; in a number of cases that a deposition of small red crystals took place in the neutral red agar, and that there was some fading of the color. Fluorescence was noted in some cases.

From the experiments made by Proskauer it is not to be concluded that while not affording a specific reaction in the case of the bacillus coli communis neutral red agar should be classed as a valuable differentiation medium.

The typhoid bacillus, while it does not cause a fading of the color of the medium, never gives rise to the fluorescence noticed in several of the cultures of

bacillus coli communis. Furthermore, the test medium should not be depended upon as the only differentiating one in the examination of water, as several very common bacteria found in water give the same reaction.

An Atypical Acid and Alcohol-Proof Fungus from the Sputum of a Case Clinically Resembling Tuberculosis.—A. P. Ohlmacher (*The Cleveland Medical Journal*, January, 1902).—This observation concerns the presence of a tubercle-like fungus in the sputum of an individual exhibiting certain clinical evidences of phthisis. It was not pathogenic for guinea-pigs. It also had certain morphologic and staining peculiarities. It was regarded as a member of the ray-fungus family, to which belong other acid-resisting tubercle-like organisms, as the grass, timothy and dung bacilli of Moller and the butter bacillus of Rabinowitsch, the tonsillar bacillus of Marzinowsky and other recently described atypical fungi. The point of practical diagnostic importance is the ease with which such an organism as this might be mistaken for the tubercle bacillus of Koch when encountered in routine sputum examinations. Another point is the differentiation of this bacillus from the smegma bacillus.

The clinical history was as follows: An epileptic female patient in the Ohio Hospital for Epileptics gave a history of suppurative lymphadenitis cervicalis. No examination of the pus had been made. Patient declined in weight and contracted a cough. Examination of the sputum showed up the tubercle-like bacillus, which warranted a diagnosis of tuberculosis. The slides were shown to Ohlmacher, who noticed the peculiar tangled arrangement of the bacilli; also some branching was noted. The morphology corresponded to that given for the streptothrix pseudo-tuberculosa of Flexner, except it was a much more delicate organism. That it was not the smegma bacillus was proven by its capacity to retain its stain even when treated with alcohol, acids and ether used in the various combinations. It did not stain with Sudan. Upon four occasions during eight months guinea-pigs were subjected to subcutaneous injections of emulsions of the sputum. None of the seven pigs employed reacted. Two of the pigs were killed, one after four weeks and one after six weeks, and no nodular lesions were found. The other pigs remained unaffected. No cultures could be obtained of the organism on glycerin agar, blood-serum or blood-covered agar. Ohlmacher concludes that his case should be classified in the category with the examples of anomalous infection with atypical members of the ray-fungus group.

GYNECOLOGY AND OBSTETRICS.

IN CHARGE OF

HUGO EHRENFEST, M. D.

The Operation for Uterine Cancer by Means of Schuchard's Paravaginal Incision.—F. Schauta (*Monatschr. fuer Geb. und Gyn.*, February, 1902).—In trying to improve the results of operations for cancer of the uterus the author resorted, during the last decade, to a very careful selection of the cases. Thus, he operated on only 14.7 per cent. of all cancer cases coming under his observation, and even then only 26.4 per cent. of the cases operated upon by the usual vaginal panhysterectomy were alive after five years. Considering the recent reports of Wertheim, Freund and others, the author proves that the hopes regarding better remote results of those who advocate radical extirpation of uterus and all lymph glands per abdomen, in every case, seem not justified. He concedes, however, the advisability of removal of the parametria in every case. In his opinion this can be done in a very satisfactory way *per vaginam* by means of the Schuchard

operation. Schuchard operated by his method on 56 to 61 per cent. of all cases, and obtained 40 per cent. of cures after five years. Schauta gives in this essay a description of thirty cases operated upon in this way in his clinic, with five deaths. Of these, two died of marasmus some time after operation, in both cases a partial resection of the ureters being unavoidable. Of the other three, one died of sepsis, the second of pulmonary embolism, the third of peritonitis after perforation of the intestines. Taking into consideration the whole number of carcinoma cases observed in the clinic during the same space of time, the author emphasizes that this operation has doubled the percentage of operable cases. Since all these cases have been operated upon from June to November, 1901, the author is not in a position to speak about the remote results in his cases.

[The essentials of the Schuchard operation are as follows: It is a vaginal panhysterectomy aided by a lateral vaginal incision on the left side, extending from the left lateral vaginal fornix to the vaginal orifice, and penetrating the perineum to the left of the rectum as far as the sacrum. This incision gives an excellent view of the operation field, and allows the removal of the *parametria* and *ligamenta lata* as far as the pelvic wall. By this method the ureters are clearly seen and dissected before the broad ligaments are divided.—Ed.]

A Unique Case of Ovariotomy.—Krabbel (*Monatschr. fuer Geb. und Gyn.*, February, 1902).—Patient is a gentleman, teacher in a high school, with mustache and short whiskers. Abdomen distended by a large tumor. Penis apparently normally developed, but not perforated by the urethra. There is an almost complete hypospadia. No scrotum, no testicles; there are, however, two folds resembling labia. Under anesthesia a small vagina with a cervix was detected. At the operation the tumor was found to be a multilocular ovarian cyst of the left side. One year and a half later a new tumor developed. It was extirpated and proved to be a teratoma, showing sarcomatous and myxomatous degeneration. Since the second operation the patient, a pseudo-hermaphrodite *femininus*, is well.

Formation of a Fibroid in the Uterine Stump After Supravaginal Amputation.—Doleris (*Tr. Soc. d'Obst. de Gyn. et de Pæd. de Paris, rep. Annales de Gyn. et d'Obst.*, Paris, February, 1902).—Hemorrhages (menstruation?) more copious and painful than they were at the time of menstruation previous to the operation, were observed by the author in a case in which supravaginal amputation had been performed on account of multiple myomas a year before. Doleris bisected the cervix, and found in the canal of the uterine stump a fibroid of the size of a walnut. After extirpation of this growth the hemorrhages ceased.

Etiology and Therapy of Pruritus Vulvæ.—Seeligmann (*Deutsche Med. Wochenschr.*, 1902, No. 9).—Pruritus vulvæ is found in the presence of gonorrheal or other pathologic secretions from the vagina, in general pruritus, pediculosis, in cases of masturbation or of diabetes mellitus, in congestive conditions, etc. Cases in which a primary cause cannot be found have been called "neurotic." Studying these "neurotic" forms of pruritus the author was able to find in all instances a diplococcus which resembles the gonococcus in form, but differs from the latter and other diplococci as far as reaction to stains and growth on culture media is concerned. The writer treats these cases exclusively with guaiacol-vasogen, and has almost always met with success. Excoriations of the vulvar mucous membrane, if any, are first cured by the application of some indifferent salve. Then a ten per cent. solution of guaiacol is applied for three days in succession, once daily. If the effect is not satisfactory, a fifteen or twenty per cent. solution is tried, care being taken that the medicine is applied to the itching areas only. If after the lapse of a few days the itching sensation recurs, a repetition of the same procedure will suffice to obtain a lasting result.

Psychic Disturbances and Convulsions Produced or Exaggerated by Menstruation.—VIALLON (*Annales de Gyn. et d'Obstr.*, February, 1902).—Menstruation serves to eliminate toxic substances which are products of metabolism and are stored up in the blood. If the secretory function of either uterus or ovaries is impaired, this elimination does not take place in the proper way. Auto-intoxication is the consequence. This condition again leads to functional disturbances in various organs, among which the gastro-intestinal tract and the urinary system are most frequently affected. The secondary disturbances, on the other hand, increase the auto-intoxication. In the author's opinion these conditions explain the cases in which menstruation is accompanied by (1st) elevation of temperature; (2d) psychic disturbances, generally characterized by mental confusion; and (3d) convulsions (in epileptics and paralytics).

Enemata of Normal Saline Solution in Hyperemesis Gravidarum.—CONDAMIN (*Lyon Medical*, February 2, 1902).—The author applies, in cases of uncontrollable vomiting during pregnancy, enematas of about 300 grams, several times a day for about a week, at the same time keeping the stomach absolutely empty. When the patient cannot retain the enematas, a few drops of tincture of opium are added to each enema. He claims satisfactory results in eight cases so far treated by this method.

Cesarean Section Performed for the Third Time on the Same Patient Under Local Anesthesia.—H. R. SPENCER (*Journal of Obst. and Gyn. of Brit. Emp.*, February, 1902.—Schleich's eucain solution was injected along the old scar for six inches. The new incision was made through the scar. Owing to the adhesions from the previous operations, the peritoneum was only slightly opened at the upper and left part of the incision. The first part of the operation (incision and delivery) was practically painless; the sewing up of the wound in the uterus was also quite painless, but there was quite a good deal of pain during the abdominal stitching. Patient made an uninterrupted recovery. In the author's opinion, the risk of sepsis in a subsequent cesarean section is reduced if adhesions have formed between the previous incisions in the uterine and abdominal walls, as thus the child may be delivered with but a slight or no opening of the general peritoneum.

Cesarean Section Performed Four Times on the Same Patient.—N. CHARLES, Liege in France (*Americ. Medicine*, "Foreign Notes," March 15, 1902).—The author reports the history of the fourth cesarean section performed on a small rachitic patient whose pelvis has a sacro-pubic diameter of six centimeters. Both mother and child are reported as well. Of the three children previously delivered in the same manner, two are well and one died at the age of thirteen months from bronchitis.

Appendicitis During Pregnancy.—PAUL MASSAREL (*These de Fac. de Med.*, Montpellier, France; *Rev. Annal. of Gyn. and Ped.*, February, 1902).—The author shows that appendicitis during pregnancy is far from being a rare condition, and thinks that pregnancy predisposes to this disease. The symptoms of the disease during this stage do not materially differ from those of the typical appendicitis. He draws from his extensive studies on this question the following conclusions: (1) appendicitis is a complication of pregnancy of such frequency that it deserves the attention of all practitioners; (2) appendicitis occurring in a pregnant woman puts her life in danger and compromises the life of the child; (3) puerperal appendicitis is frequently accompanied by symptoms of general septicemia; (4) the symptoms of puerperal appendicitis resemble those of the non-puerperal, the diagnosis being usually easy; (5) the prognosis of puerperal appendicitis depends in a large measure upon the treatment employed; (6) sur-

gical treatment is the only treatment applicable; it should be employed early in all cases.

ORTHOPEDICS.

IN CHARGE OF

MALVERN B. CLOPTON, M. D.

Congenital Elevation of Shoulder.—JOEL E. GOLDTHWAIT, M. D., and CHAS. F. PAINTER, M. D., Boston (*Boston Med. and Surg. Jour.*, December 26, 1901).—A report of two cases illustrating the two types of deformity treated by operation. The first case, in a boy of twelve years, was due entirely to an imperfect development of the muscular structure, and was probably caused by some injury at the time of birth, as has been clearly demonstrated in its analogue, congenital torticollis. The whole shoulder was elevated, but there was no disability. The operation, through a long incision along the posterior border of the scapula, freed the attachment of the trapezius to the spine, exposed the rhomboid muscles, which were largely fibrous tissue, and after whose division, and also the levator anguli scapulæ, it was possible to draw the scapula to the side, but not to depress it on account of the shortening of a portion of the serratus magnus. This latter muscle was divided, and the scapula well replaced except for the deformity due to the bending forward of the portion of the bone above the spine. The trapezius was reattached higher on the spine, and the arm dressed with the outer part of the shoulder elevated, thus throwing the angle of the scapula far out at the side, and this was held in by a strap passing across the inner portion of the shoulder, entirely reversing the angle of the bone. Recovery was uneventful. Passive motion was begun in two weeks, followed shortly by active use. The arm functionates normally. Photographs show the case before and after the improvement.

In the second case, a healthy, active boy of eleven years, the position of the shoulder was associated with an embryologic condition, there being a distinct articulation between the upper angle of the scapula and vertebra. The use of the arm had not been restricted except in the extreme elevation of the arm when extended. There was cervical curvature of the spine and marked facial asymmetry. The right scapula was small and its lower angle was on a level with the middle of the vertebral border of the left. The right scapula was attached at its upper angle to the seventh cervical vertebra by an osseous band which acted as a pivot, and contained articulations at either end. This band was removed, and under massage and exercises, with a head sling to correct the position of the cervical spine, there has been distinct improvement.

The Treatment of Congenital Hip Displacement, With Special Reference to the Ambulatory Method.—H. A. REEVES, F. R. C. S., Edinburgh (*Lancet*, November 23, 1901).—The author claims two years' priority in this treatment, when the open method was still practiced by Lorenz. Reduction is accomplished by the combined Bigelow and Paci methods, and a modified Thomas hip splint with traction as applied. He is skeptical of the claims of those who state that the bloodless method can give perfect results, but is contented with converting iliac displacements into anterior, dorsal, or supracotyloid. This considerably diminishes shortening and cordosis, and improves the walk; and this is all that can be expected. The dangers of the open methods are dwelt upon at length.

Congenital Dislocation of the Shoulder, With Report of Two Cases of Dislocation Posteriorly.—DAN'L W. MARSTON, M. D. (*N. Y. Med Journal*, March 16,

1901).—The old ideas of the conditions found in Smith's description in 1839, and as agreed to by Scudder in 1890, have to be abandoned since operative intervention was instituted by Phelps in 1895, the view of irregular development being replaced by the traumatic theory. Phelps, in examining the glenoid cavity with his finger, found the posterior border of the cavity broken away and the detached fragment attached to the capsule; and in two other cases operated upon, the detached fragment was found in like manner. Ordinary manipulation and outward appearances do not in these cases give sufficient evidence on which to decide whether the dislocation is due to traumatism or to non-development, and from a review of his cases and those in the literature the author advocates the belief of Phelps, that such dislocations, subcoracoid or subspinous, are due either (1) to traumatism, either at birth or in utero, or (2) to some prenatal diseased condition of the joint—*e. g.*, tuberculosis or osteomyelitis in utero.

The majority of these cases can be traced to a difficult delivery, and more than a few of the heretofore supposed cases of obstetrical paralysis are undoubtedly instances of traumatic dislocations at birth, with the paralysis as a coincident complication due to the same causes as produced the paralysis, and that the paralysis is not a primary etiologic factor of the dislocation. In Stone's six autopsies he found no evidence of faulty development.

The treatment may be mechanical and operative. Manual manipulation should be attempted in patients under three years of age. Failure in this operative treatment as advised by Phelps is clearly indicated. The prognosis is even better than in congenital hip. Eleven cases have been operated to date.

The author draws the following conclusions:

1. It is of the utmost importance to distinguish between cases of dislocation and obstetric paralysis.
2. The treatment of the former condition is immediate reduction by manipulation if possible, otherwise operative.
3. Every infant should be carefully examined at birth, for at this time reduction is easiest performed.
4. From the facts that a fracture of the glenoid cavity was found in three of Phelps' cases, and that nearly all cases show difficult labor, they are not of paralytic origin or due to non-development, but are traumatic, the finger of the accoucheur in the axilla being accountable.
5. The prognosis of the operative treatment is excellent.
6. Like congenital hips, the cases of the shoulder are little benefited by mechanical treatment.

PEDIATRICS.

IN CHARGE OF

ALFRED FRIEDLANDER, M. D.

Etiology of Meningitis and the Diagnostic Importance of Lumbar Puncture.—LEWKOWICZ (*Jahrbuch fuer Kinderheilk.*, vol. lv, part 3, p. 266, March 1, 1902).—The author groups his results under the following heads:

1. Epidemic cerebro-spinal meningitis.
2. Acute infective non-specific meningitis.
3. Tubercular meningitis.
4. Non-infectious processes.

Epidemic Cerebro-Spinal Meningitis.—Diplococcus intra-cellularis meningitidis usually found in the protoplasm of the cells of the spinal fluid. These cells are nearly always the polymorphonuclears. Lymphocytes are also found in the fluid,

but they do not contain the germs. Occasionally the diplococcus is found in the endothelial cells of the fluid. Staining by Gram's method negative. Meningococcus grows easily on glycerin or serum agar.

This type of germ was found in all (7) of the author's cases. There is, however, another type of this germ (which, for instance, is positive with Gram's stain). The question of the specific etiologic factor of the epidemic form of meningitis is therefore not decided as yet.

It is noteworthy that various investigators have found a diplococcus (resembling the meningococcus very closely) in secretions from nose, pharynx and ear, in sputum, in stools, in pericardial, pleural and arthritic exudates, and in the urine. It is possible that the meningitis may thus be secondary to the infectious process elsewhere.

Acute Non-Specific Meningitis.—In this class of cases any of the pus-formers may be found in the fluid; pneumococcus, staphylo- and streptococcus, B. coli communis, B. typhosus, and influenza bacillus. Infection here is by extension (skull trauma) or ear disease, by metastatic route (pneumonia, etc.).

Tubercular Meningitis.—Intracranial pressure (measured by manometer at time of lumbar puncture) very high. Fluid contains large quantity of albumin. Lymphocytes more numerous than the polymorphonuclears in the fluid. In many cases tubercle bacilli could be found in the sediment; in all cases animal experiments were positive.

Non-Infectious Process.—Meningitis after insolation, chronic simple hydrocephalus. In the cases of this class examined by the author, the lumbar puncture gave negative results.

Interstitial Nephritis in Infancy.—Ida Democh (*Archiv. fuer Kinderheilk.*, vol. xxxiii, parts 3–6, p. 284) reports a case of an infant of two months brought to the hospital showing uremic symptoms. Examination of urine showed large quantities of abumin, with great numbers of granular casts containing numerous fat droplets. The post-mortem showed the characteristic picture of interstitial nephritis, with cardiac hypertrophy. A definite cause could not be obtained.

The Heart of the Child.—D. B. Lees (Presidential Address Before the Harveian Society, 1902).—In this admirable address Lees calls special attention to the importance of routine examination of the heart in all children. He shows that the neglect of this procedure frequently results in the overlooking of conditions which could be recognized by careful examination, and very often rectified by appropriate treatment. He calls especial attention to the need for very light percussion in the examination of children's hearts. The author determines the relative heart dullness; he lays special stress upon dullness in the fourth right interspace as being the area over the right auricle. According to Lees, slight dullness can always be obtained in this area, even in normal children. Whenever the right auricle is dilated, as in pneumonia, and in the later stages of endocarditis of the left heart, this dullness is very considerably increased. Lees goes so far as to assert that in cases of pneumonia he uses this diagnostic point as an indication for bleeding (which he does in the form of leeching), when it would appear that there was excessive distention of the right auricle. The left border of cardiac dullness is usually internal to the mammary line, but it may extend to it; extension of the cardiac dullness to the left of this line is always an evidence of dilatation or hypertrophy of the heart. Evidences of congenital heart lesion should always be sought for. One of the most common of these is a systolic murmur of the heart just below the junction of the left and fourth costal cartilage with the sternum. This is usually indicative of incomplete cardiac septum. Patent foramen ovale unassociated with the other lesions probably does not cause murmurs. A systolic murmur over the tricuspid is often heard in normal children,

and does not indicate organic cardiac lesion; no explanation of the fact is offered. The author calls especial attention to the dangers of acute dilatation of the heart in some infectious diseases, notably diphtheria, influenza, and typhoid. He also insists that the first effects of rheumatism are shown on the heart muscle. Careful examination will frequently show a dilatation of the heart before there is any evidence of valvular lesion. It is pointed out that the cardiac manifestations of rheumatism in children may be far more distinct than the arthritic ones, and the association of endocarditis, rheumatism, and chorea is again insisted upon. Mention is made of the diplococcus described by Poynton and Paine as being the specific cause of rheumatism. The author considers the salicylate of soda as definitely antagonistic to the rheumatic process. It is well borne in comparatively large doses by children. Where there is a tendency to relapse in rheumatic cases, small quatities of salicylate should be given daily for a long time, even after the subsidence of the acute symptoms. It is of advantage to combine with the salicylate the use of bicarbonate of soda, the dose of the latter being twice that of the former. To repress the cardiac inflammation of rheumatism the author finds leeching and the local application of ice-bags efficacious. He does not use digitalis in the acute stages. For the acute cardiac dilatation of diphtheria he has had best results with hypodermic injections of atropine.

Carcinoma of the Liver in Childhood.—SCHLESINGER (*Jahrbuch fuer Kinderheilk.*, vol. lv, page 300, March, 1902), has collected the published cases of carcinoma of the liver in childhood. There are ten cases of primary carcinama in children up to fourteen years of age, and eleven cases of secondary carcinoma. Of these the kidney was the seat of the primary lesion eight times, the pancreas twice.

From a study of his own case and the literature the author concludes that:

1. Primary carcinoma of the liver in childhood, especially in the first years of life, is very rare.
2. The gradually increasing size of the liver is a constant sign.
3. Enlargement of the spleen, ascites, and extreme cachexia usually mark the rapidly fatal course; icterus has not been observed.
4. The liver carcinoma is usually nodular.
5. Adenoma of the liver is of much importance in the pathogenesis of the primary liver carcinomata.
6. Secondary carcinoma is also very rare—is usually secondary to growth in the kidneys—as a rule produces no symptoms *per se*.

Cirrhosis of the Liver in Childhood.—WALLS (*Pediatrics*, March 15, 1902) points out that this is an exceedingly rare affection in childhood. The etiological factors are: male children affected more than female (5–1.) Alcoholic history has been recorded in less than twenty per cent. of the cases; syphilis (hereditary) is an etiological factor in about ten per cent. of the cases; tuberculosis is a relatively frequent causative factor. In many cases the primary lesion is a tubercular pericarditis with synechiæ of the pericardium and subsequent hepatic cirrhosis. Chronic sepsis and valvular lesion with nutmeg liver have occasionally been found causative.

The cirrhosis of childhood is more apt to be of the mixed than of the pure atrophic or the hypertrophic type. The symptomatology of the disease is often obscure, and it may be difficult to differentiate the condition from chronic peritonitis. Large liver and spleen, icterus, suggillations of the skin, gastro-intestinal hemorrhages and free fluid in the peritoneal cavity are, however, suggestive of hepatic cirrhosis. Prognosis is unfavorable, and course usually rapid.

NEUROLOGY.

IN CHARGE OF

SIDNEY I. SCHWAB, M. D.

Sero-Therapy in Epilepsy.—CARL CENI (*The Med. News*, Nos. 10 and 11, 1902).—This interesting and important essay won the Craig Colony Prize for original research in epilepsy in 1901. Although, on account of its length, it does not lend itself very well to abstracting, yet it contains so much that is novel that it is worthy of at least a *resume*. The object of the paper is to study the pathogenesis of epilepsy for the purpose of adding to the proof of the autotoxic theory of this disease. There is in all probability some toxic irritating cause of a biochemical nature, and elaborated by the organism, which is of capital import in the determination of the epileptic fit. In order to confirm the autotoxic theory of epilepsy, the author injected epileptic serum into hens' eggs. The remarkable increase of the teratogenic power of the blood of epileptics as compared with that of healthy individuals can be explained by no other interpretation. It is even probable that the circulating toxic principles, which have the property of interfering with the normal development of the embryo, are closely connected with those poisons which, acting simply as an irritant upon the formed elements, produce the epileptic phenomena. This theory has been proven by hundreds of experiments. Inasmuch as these results have led the author to believe that the epileptic attacks are the consequence, at least for the most part, of the toxic products circulating in the organism, it was natural to conclude, following the reasoning of modern sero-therapy, that a similar method of treating idiopathic epilepsy might be discovered. The first experiment was as follows: Small doses of epileptic serum were injected into other epileptics for the purpose of finding out if the specific poison would introduce into the organism any property that might be of therapeutic value to other less severe and earlier cases. No result was obtained. The next experiment had for its object the causation of an immunity in the patient against the toxic substance found in his own organism by giving progressive doses of the same serum. Two procedures were followed in the experimental studies: one, the injecting of blood serum of one epileptic into a second epileptic less ill than the first; the other, the reinjecting into an epileptic some of the blood serum drawn from himself after bleeding. The author's hypothesis of the pathogenesis of epilepsy deserves mention, both on account of its importance in this research and because it differs from most of those who hold the autotoxic theory of this disease. It is that the crises are only brought about by a discharge of dynamic energy gathered in epileptogenetic centers in consequence of an irritation which is lasting, constant and uniform for an indeterminate period of time. The therapeutic experiments were carried out as follows: Tubular needles of large bore, fixed in a glass pipette, 10 cc. long, were used. The tubular needle is inserted into a venous trunk which is compressed above. The free end of the tube empties into an Erlenmyer bottle. Great care is of course paid to cleanliness and antisepsis. The quantity of blood drawn varies with each individual; as much as 250 to 300 cc. was taken at one time from one patient. The serum is separated and is then divided into portions of 10 cc. each, and with a little camphor is separately bottled after fractional sterilization. The serum is then ready for use. Both in injecting serum from one epileptic into another and in reinjecting into the same patient, progressive dosage was followed, beginning with 3 to 5 cc. and increasing up to 10 or 20 cc. in thirty or forty days. This is necessary from the fact that some patients react violently to the first injections even when made in small doses and present symptoms of an acute intoxication, which may even be dangerous. This is the crisis

of adaptation and is quite transitory, disappearing after a few injections. The whole method of treatment is briefly as follows: During the first month at intervals of a few days, a total quantity of 40 to 50 cc. is injected into the glutei. In the following months, when the patient has overcome the first adjusting period, the total dose is carried to 80 to 100 cc., especially if the patient begins to improve. The injections are continued until the maximum advantages are obtained, and when the patient no longer reacts. Ten epileptics have thus far been treated, and have been under observation for one to two years. All the cases experimented upon were of the severest form of idiopathic epilepsy, both in regard to the number and intensity of the motor crises and to the presence of psychic and sensorial phenomena. The therapeutic results are divided into two groups; eight cases with positive and two cases with negative results. The patients of the first group showed marked improvement in weight and in general nutrition. In some of them the improvement gave promise of a definite cure; there was total disappearance of all epileptic manifestations which did not recur after the treatment was stopped. The psychic improvement was just as marked. It may be said that even if the benefits obtained, as regards the general condition and a more or less remarkable diminution of all epileptic manifestations are only transitory, they are none the less of sufficient duration to commend the treatment to general adaptation. In the two negative cases the treatment had to be stopped after a brief time, because the patients showed a loss of weight and a general increase of epileptic manifestations. Careful clinical histories of all these cases can be found in the article. In conclusion the author states: "These researches demonstrate that in epileptic blood there are two active principles, which their different and opposite properties show to be of different nature and origin. One of these principles circulates in a free state and is only endowed with toxic properties when injected into the organism of another epileptic. The toxic effect may be immediate and direct and may follow even small doses. The phenomena it determines are transitory in character. The other active principle circulates in the blood of epileptics but only in a latent state. It is endowed with properties which have a stimulating power on the metabolic cells, which are concerned with the elaboration of the epileptogenous toxic agents. These stimulating properties appear only as the remote consequences that take place as the result of repeated injections, over a considerable period of time, with the blood serum of an epileptic into himself or into another epileptic. These stimulating properties can deeply modify nutrition and epileptic manifestations. Upon both they exert a slowly progressive action which may be restoring and therapeutic or weakening and poisonous. In these cases in which the principles have restoring therapeutic properties, there always results a remarkable increase in body weight and an improvement or total disappearance of disturbances of organic functions or of social life. In cases in which the said principles do not act favorably on metabolism, the serum injections are useless." This essay is earnestly recommended to all those who are interested in epilepsy, both from the standpoint of pathogenesis and therapy.

A Contribution to the Clinical Significance of Absence of the Tendo-Achillis Jerk.—Edwin Bramwell (*Brain*, Winter number, 1901).—An investigation undertaken with the hope of ascertaining more exact knowledge as to the diagnostic significance of the absence of the Achillis jerk. In order to give this reflex a clinical value, it must first be determined how frequently it is found in health. The reflex is best obtained in the kneeling position; the patient kneels on a chair with his feet projecting a few inches over the edge. The tendon is struck sharply, close to its insertion into the os calcis, and if the jerk is present the stroke is immediately followed by a quick plantar flexion movement of the foot at the ankle joint. The true jerk is a quick movement occurring immediately after the stroke and is quite distinct from the slight movement of the foot, which occurs as an mechanical effect in cases in which the reflex is lost. To ascertain the state of

the Achillis jerk in health and in diseases other than those of the nervous system, the following material was made use of: fifty children in the wards of a children's hospital, 219 school children, 100 convalescent fever cases, 80 medical students, 230 individuals over forty years of age, 100 insane cases, 100 patients in the wards of a general hospital; 100 nervous cases of a great variety of diseases were examined to ascertain the state of this reflex in organic nervous conditions. The following conclusions are noted as the result of this careful and convincing study: 1. The Achillis jerk is most easily and conveniently obtained in the kneeling position. 2. The reflex is probably constantly present in health in persons under fifty years of age. In other words, the loss of the Achillis jerk in a person under fifty years of age, in the absence of any local cause, such as great edema of the leg which may mechanically interfere with the examination, is always to be looked upon as a sign of organic disease, with the same assurance as loss of knee jerk is so regarded at the present time. 3. In persons over fifty, the activity of the Achillis jerk diminishes with increasing age, consequently in old people absence of the Achillis jerk, especially if bilateral, cannot be regarded as having the same diagnostic significance that it has in children, young persons, and middle-aged adults. 4. In the majority of cases of disease in which the Achillis jerks are absent the knee jerds are lost also; *e. g.*, most cases of tabes, peripheral neuritis, etc. 5. In certain conditions in which the knee jerks are unaltered, the Achillis jerks are found to be absent or greatly diminished. Under these circumstances, the the loss of the Achillis jerk may prove a valuable adjunct in diagnosis. 6. Since in tabes the Achillis jerk is usually lost before the knee jerk, its condition should always be ascertained in suspected cases of that disease, and more particularly in those cases in which the knee jerks are present. 7. It has been shown by Babanskii and others that in cases of sciatica the Achillis jerk is usually lost on the affected side. The loss of the Achillis jerk proves the existence of a sciatic neuritis. The absence of the Achillis jerk is for this reason a physical sign of importance in the diagnosis between true sciatica and the hysterical form of this disease. 8. The loss of the Achillis jerk caused by a sciatic neuritis may persist for years after the sciatica has itself disappeared. 9. Cases of multiple neuritis are met with in which the Achillis jerks are absent, while the activity of the knee jerks remains unimpaired. In such cases the absence of the Achillis jerk is of value in diagnosis. 10. It appears probable that the Achillis jerk is sometimes lost as the result of syphilis, just as the Argyl-Robertson pupil sometimes occurs as the result of that disease, unaccompanied by other signs of tabes or general paralysis. The absence of the Achillis jerk is sometimes of value in localizing lesions in the spinal cord or in the nerve roots.

The Condition of the Spinal Cord in Tuberculosis of the Lungs in the Insane.—Ransohoff (*Monatschr. fuer Psychiatrie u. Neurologie*, February, 1902).—The diseases of the peripheral nerves in cases of phthisis have been frequently the subject of study, but the cord and brain in tuberculosis of the lungs seems to have been neglected. This investigation was based upon a material of eleven cases. As a rule the forms of insanity which develop tuberculosis are those cases in which a careful clinical history from a neurological standpoint is almost impossible on account of the dementia which is present. The results in general from a pathological point of view are as follows: 1. The white substance of the cord, especially, the long fibers suffers considerable change in tuberculosis, which shows itself at first by simple Marchi degeneration and later by complete destruction with the presence of granular cells and hypertrophy of the glia. 2. Especially disposed to such changes are those cases of phthisis which run a rapid course and which are without doubt of mixed infection. 3. The posterior columns are most profoundly affected in the cervical region and the pyramidal tracts in the upper lumbar region. The extramedullary portion of the roots are not affected.

4. Hydropsical swelling is found frequently in the cords, but the degeneration mentioned above does not seem to stand in relation to it.

GENITO-URINARY SURGERY.

IN CHARGE OF

H. McC. JOHNSON, M. D.

A Case of Severe and Threatening Hematuria from Movable Kidney with a Discussion of the Causation of this Condition.—CABOT (*Boston Med. and Surg. Jour.*, March 6, 1902).—It is not uncommon in cases of movable kidney to see blood in the urine in microscopical amount, but it is rare to see it in such quantities as to give urine a characteristic color. The right kidney of this patient could be palpated, having its lower pole at the pelvic brim and its upper pole at the edge of the liver. It was much enlarged, and so fixed that moderate force could not replace it in its normal position. Examination of the bladder was negative. At first the hematuria was intermittent, but later it became so severe and continuous that the patient was pale and waxy in appearance with a rapid and feeble pulse. As this condition contra-indicated any operative procedure, and as the patient's position in bed of half sitting and half bending forward favored downward sagging of the kidney, it was decided to raise the foot of the bed with the patient upon her back, so as to relieve this downward pull. For the first forty-eight hours the hemorrhage appeared to be increased, but soon afterwards it ceased entirely, only to return when the sitting position was again resumed. After forty-four days the size of the kidney had diminished to little, if any, above normal, and, as the hemorrhage was absent, the patient gained in strength, appetite and digestion. The kidney could now easily be made to occupy its normal position. A nephropexy was done at this time. The capsule proper of the organ appeared milky and was thickened. This was split along its convex border, slightly separated, and stitches inserted. The patient has been free from bleeding since the operation, May 20, 1901.

The author suggests that in many of these enlarged movable kidneys, in addition to the hydronephrosis, the congestion plays an important causative role in the enlargement, especially on the right side, as here the renal artery is long and the vein short, making it easy for sagging to cause venous obstruction. Besides, the vein having thin walls and a weak current, is more prone to obstruction. This congestion is, too, probably, the exciting agent in cases of hematuria without discoverable cause that we frequently cure by cutting down upon the kidney and splitting the capsule.

Chronic Cystites.—HALLE and MOTZ (*Ann. des Mal. des Organ. Genito-Urin.*, January, 1902).—The authors report their microscopic and histologic findings in one hundred bladders from patients who have succumbed to chronic inflammatory affections of the urinary apparatus, non-tubercular. The cases are divided into three groups:

I.—Pure chronic cystites: those in which the chronic inflammation alone is responsible for the lesions.

II.—Complex chronic cystites: those in which the chronic inflammation appears upon a wall previously modified by the action of different mechanical causes.

III.—Degenerations of the wall from undetermined causes.

Macroscopically in *pure chronic cystites*, the bladder capacity is much diminished,

sometimes to twenty grms.; moreover its form and capacity become fixed. The walls lose their suppleness, the bladder its susceptibility to variation of form from distention and pressure, and is more or less a solidly fixed organ with an invariable capacity. The walls are thickened in their entirety, giving to the organ upon palpation the feel of solidity. The internal surface loses its pale, rose-gray of health, and takes on a dull, deeper slaty tint. Here and there are spots of deeper pigmentation, of vascular origin, true ecchymoses. Villous transformations are quite characteristic. The surface feels velvety, and under water we readily recognize this velvety feel to be due to little papillary projections. More frequently the internal aspect is granular, rough to the touch. Pseudo-membranous exudates and leucoplasia placques are rare, while formations of cysts and true vesical ulceration are not dependent upon chronic cystitis, though they may be coincident with it.

Upon section the bladder wall shows an increase in thickness even up to two to three centimeters. The several layers have more or less lost their independence and are blended together. There is an increase in the conjunctive interstitial tissue. The external sero-fibrous layer of the bladder, too, is manifestly modified. It is thickened, indurated and adherent. The vessels and nerves are enveloped and fixed by thick, fibrous partitions.

In a word, from the macroscopic study of these cases, chronic cystitis is characterized by deep lesions, modifying all the layers of the bladder wall; it is a total cystitis.

A New Test for Albumen.—FUHS (*Med. Rec.*, March 8, 1902).—The test solution consists of a mixture of equal parts of glycerine and carbolic acid. To two cc. of this solution in a test tube add two cc. of filtered urine. Mix well together by shaking and stirring. If the resultant fluid is clear, the urine is free from albumen; if the slightest turbidity is noticeable, the urine is albumenous.

The Severing of the Vasa Deferentia and Its Relation to the Neuropsychopathic Constitution.—SHARP (*N. Y. Med. J.*, March 8, 1902).—Heredity of moral qualities is as evident as that of physical conditions. The marriage of the unfit should be restricted. Every male who passes the portals of a State institution—be it almshouse, insane asylum, institute for the feeble-minded, reformatory, or prison—should be rendered sterile. This should be done in as humane and considerate a way as possible. The author has severed the vasa deferentia in forty-two patients, and can state positively that it does not impair the sexual power of those operated upon, that they improve mentally and physically, in that they increase in flesh, feel that they are stronger, and that while prior to the operation they made no advance in school, their advance now is fairly satisfactory. Castration practically destroys the future enjoyment of life, and the knowledge of the patient that he is deprived of sexual power has a very depressing effect.

Section of the vasa deferentia is then the rational means of eradicating from our midst a most dangerous and hurtful class.

Median Perineal Prostatectomy—Total Removal of the Prostate Gland—Six Cases.—FERGUSON (*J. A. M. A.*, February 22, 1902).—After reviewing the previous literature and mentioning the methods of Nicoll, Alexander, Guiteras, Syms and von Dittel, the author proceeds to describe his own surgical technique of perineal prostatectomy. With his prostatic depressor passed through the urethra into the bladder, and the middle finger of the left hand in the rectum at the apex of the prostate, he introduces a knife into the perineum two inches in front of the anus until it reaches near the tip of the finger in the rectum, and with one stroke cuts through all the structures to the prostate without injuring the urethra, prostate, rectum or anal sphincter. By blunt dissection expose the prostate, open its capsule transversely. Now place the retractors within the capsule.

By traction from below and depression from above the prostate can be brought within easy reach and enucleated. No effort is made to save the posterior part of the prostatic urethra, but the bladder walls are not damaged.

Six cases with favorable results are reported.

A New Combined Electro-Cautery Incisor for the Bottini Operation.—YOUNG (*Bul. Johns Hopkins Hosp.*, February and March, 1902).—It is in the small sclerotic prostates and those of patients too old and too feeble to safely undergo the shock of a satisfactory prostatectomy that the Bottini operation has achieved really wonderful results. The Freudenberg instrument has some objectionable features which the author has overcome in his modification. Owing to the wide angle at which the beak meets the shaft in the former, when one is pulling against the prostate the beak of the instrument will often slip into the deep urethra without the operator perceiving it and do damage there of a serious nature. This defect has been overcome by making the angle nearer a right angle. In the Freudenberg instrument the handle often becomes so hot that it sometimes prevents the operator from turning the contact screw to break the current. This is overcome by giving a broader contact surface at the connection. As prostatic obstructions differ in size it is unreasonable to make the same size groove in all of them—the same size for a large projection as for a small one. To meet these requirements, Young has had constructed four blades for his instrument with different length beaks.

The prostates should be studied and incised intelligently. To make the same incisions in every case will lead to disappointing results. But, as a rule, the usual three incisions—one posterior and two lateral—are entirely sufficient for most cases. However, exceptional cases must have exceptional incisions.

A Case of Double Urethra.—DUHOT (*Ann. des Maladies des Organ. Genito-Urin.*, January, 1902).—Two canals are observed, one opening at the end of the glans penis and the other terminating just behind the corona glandis in the median line on the dorsum of the organ. While the former is the true urethra opening into the bladder, the latter has a blind proximal ending. It admits a No. 8 F. bougie for one and one-half centimeters, then only a filiform for nine centimeters.

The author has collected nineteen other cases, in some of which both canals connect with the bladder.

The extra urethra in this case was obliterated, not by excision of the canal, but by electrolysis. This was accomplished without in any way interfering with erection.

DERMATOLOGY AND SYPHILIS.

IN CHARGE OF

MARTIN F. ENGMAN, M. D.

Remarks Upon the Micro-Bacillus of Seborrhea (Sabouraud)—Preliminary Report Upon an Examination of the Seboceous Secretions of the Nose.—JAY F. SCHAMBERG, A. B., M. D. (*Jour. Cut. and Genito-Urinary Diseases*, March, 1902).—In 1894 Unna, Engman and Hodara described a minute bacillus which they found constantly in comedones and regarded by them as the cause of blackheads and acne.

Sabouraud subsequently made an elaborate study of this bacillus, which he designates as the micro-bacillus of seborrhea. He likewise regards this organism as an accessory and at times the exciting cause of acne, and the cause of true baldness.

About a year ago the author, while examining the sebum from the sebaceous follicles of the nose, noticed an organism therein which was apparently identical with that described by Unna and his confreres. On looking up the subject he noticed that Sabouraud had previously noted its presence in the follicles of this region and had remarked upon the identity of this organism with that of Unna, Engman and Hodara. In order to determine its frequency Dr. Schamberg examined fifty subjects; some perfectly healthy individuals and others suffering from various cutaneous diseases. A little sebum was squeezed out from the nasal follicles, spread between two coverslips and stained with Loeffler's methyline blue and gentian violet. The condition of the skin, whether oily or dry, was noted in each case. The bacilli were present in forty-five cases and absent in five; they were present, therefore, in ninety per cent. of the patients examined:

27	positive cases, skin oily.
16	" " " dry.
2	not determined.
45	
3	negative cases, skin dry.
2	" " " oily.
5	

The bacilli were present in masses of thousands and represented practically pure cultures.

Efforts of the author to artificially cultivate them failed, but Sabouraud succeeded upon special media, after fifteen months, of experimentation.

Seborrhea, acne, ordinary baldness and alopecia areata, are, according to Sabouraud, produced by the same germ, this "micro-bacillus." What is it that causes the germ to produce one affection in one individual and another disease in another? Why should alopecia areata occur in one patient and progressive baldness in another? Why should young women suffer from acne and not from baldness? It would seem the easiest matter in the world for the micro-bacilli to be transplanted from the face to the scalp. It is to be presumed the answer is that the soil determines whether the germ shall grow, flourish or produce its pathogenic results in one region or another. The author is of the opinion that the micro-bacillus described by Unna and his pupils and Sabouraud, may be found in the sebaceous follicles of the nose and perhaps elsewhere, in ninety per cent. or more of adults. Sabouraud would doubtless reply that almost everyone suffers from seborrhea of the nose. If the presence of vermiform sebaceous filaments in the skin constitute seborrhea, then this statement is true. It may be well, however, to call attention, that in sixteen of the individuals in whom micro-bacilli were found, the skin of the nose, at the time of examination, was dry and not oily. If micro-bacilli are present in millions in the sebaceous glands of the nose of nearly all adults, it is not surprising that they should constantly be found in comedones and frequently in the hair follicles of the scalp.

Are all individuals in whom micro-bacilli are found protected against acne, baldness and alopecia areata by reason of the fact that they present an unfavorable soil for the growth and development of this bacillus? If this were true, it would indicate that only a very small percentage of the carriers or hosts of this organism were susceptible to its ravages. Moreover, the vast majority of people, in addition to this minute bacillus, have staphylococci present upon the skin. They have, therefore, both of the germs which determine an acne. If they are protected by the absence of favorable soil, then the general predisposing causes of acne are of preponderating importance, and the presence of the exciting organisms of secondary significance.

Skin Eruptions in Malaria, With the Report of a Case of Urticaria.—David Riesman, M. D. (*American Medicine*, March 22, 1902).—Although malaria can-

not be classed as an eruptive fever, skin changes are by no means infrequent; the best known is herpes. From the author's experience it occurs probably in not quite half the cases. The favorite seats of the herpetic eruption are the lips, wings of the nose, the cheeks, and the eyelids. It may occur on the cornea, tongue, and is more common in malaria than any other disease except pneumonia. The author also considers the presence of herpes of particular value in the differential diagnosis between malaria and typhoid fever and in cases of obscure coma. Furthermore, there is a difference between malarial herpes and that of ordinary colds, the former being more in clusters and abundant.

Next in frequency to herpes in malaria is urticaria, but it is, however, a rare occurrence, as in a great many cases observed during three summers only two with urticaria occurred.

One of these cases presented a profuse eruption of urticarial wheals over the entire body during the hot stage. The tertian parasite was found in the blood. No quinine was given before the eruption.

The following conclusions are presented from the author's observation and the study of the literature:

1. Skin eruptions are not rare in malarial affections.
2. The most frequent are herpes and urticaria.
3. Neither of these present any specific characters.
4. Both may occur in any stage of the malarial paroxysm, although urticaria is most frequent in the febrile, and herpes in the sweating stage.
5. In obscure cases, herpes and urticaria, especially the former, may have considerable diagnostic value.
6. Three types of urticaria are recognizable: That accompanying the paroxysm, usually the febrile stage; that taking the place of the chill; that substituting the entire paroxysm.
7. In their appearances these three do not differ among themselves, nor from urticaria due to other causes.
8. In cases of urticaria of obscure etiology, the blood should be examined for plasmodia. Whether found or not, quinine is worthy of trial.

LARYNGOLOGY AND OTOLOGY.

IN CHARGE OF

WILLIAM E. SAUER, M. D.

Latent Frontal Sinuitis.—SHAMBAUGH (*American Journal Medical Sciences*, March, 1902).—The inflammatory diseases of the frontal sinus may be either manifest or latent. Under manifest are included all those cases which produce symptoms which point unmistakably to involvement of the sinus. These conditions have been long understood. Aside from these comparatively rare cases of manifest frontal sinuitis, there exist a far greater number of cases where the disease produces no outward or manifest symptoms, and where the only abnormal conditions are the secondary changes produced by the pus when it is discharged into the nose, with perhaps a few uncertain subjective symptoms. This so-called latent sinuitis passes often not only unrecognized but unsuspected. The detection and differential diagnosis of this condition is distinctly an achievement of modern rhinology.

Latent frontal sinuitis often lasts over a period of many years with longer or shorter intervals, when an acute exacerbation of the trouble produces symptoms which, while they do not point positively to disease of the sinus, at least should

lead one to suspect the condition. Among these symptoms frontal headache is the most constant. This is sometimes only a dull, heavy feeling or sensation of pressure, sometimes of a more severe throbbing character. More characteristic is an intermittent type of frontal headache, coming on in the morning and disappearing toward the middle of the day only to return the next morning at the same hour. The character and location, just above the orbit, have often led to a mistaken diagnosis of supraorbital neuralgia. Of great diagnostic importance is tenderness on pressure, often felt over the affected sinus; but this is not a positive sign, as pain may be elicited over a normal sinus.

In cases of long-standing empyema of the frontal sinus, secondary degenerative changes of the mucous membrane are often found about the orifice of the fronta-nasal duct. The anterior end of the middle turbinate is frequently found in a state of polypoid degeneration, and a point opposite on the septum, and the mucous membrane of middle meatus, undergoing a similar change. These secondary changes should lead one to suspect frontal sinus disease. It is not possible to base a diagnosis upon their presence, as disease of the antrum and anterior ethmoid cells may produce the same changes. The final diagnosis of frontal sinuitis must rest upon the actual demonstration of pus in the sinus. In cases where the middle meatus is free from polyps, and where the middle turbinate does not interfere, a small catheter can be passed into the sinus, but in most cases this is obstructed by the middle turbinate or polyps. The next step is to remove the polyps and anterior end of the middle turbinate. This is done with a cold snare or by means of Hartmann's conchotome. With the middle meatus free there are three methods of determining pus in the frontal sinus: 1. Introducing a catheter into the sinus through its natural opening in the nose, and washing out the pus. 2. Diagnosis by exclusion—demonstrating the pus in the anterior ethmoid cells by washing them out through their natural openings, or by puncturing with a trochar. 3. Making an exploratory puncture in the frontal sinus through the nose, as some advocate, or opening from without. The author considers the former a dangerous procedure, and when necessary would resort to the latter, though this is rarely called for.

Clinical Studies on the Value and Uses of Intubation.—KURT NOESSKE (*Sammlung Klinischer Vortraege*, No. 324).—The author in a very comprehensive article discusses in detail the indications and contra-indications of intubation and tracheotomy. In comparing intubation with tracheotomy he says that the former should not be looked at as a measure that should entirely supplant the latter, but that tracheotomy should be resorted to only when some special indication calls for it; as when the obstruction is known to be below the reach of an intubation tube, or when intubation fails to relieve the condition. Special stress is laid on the danger of decubitus of the larynx following the use of the intubation tube, if left in position too long, and he states that the tube ought to be removed at least once in every twenty-four hours, in order to allow a return of the circulation to the part. In his experience decubitus was never very extensive nor appeared any more often than decubitus of the trachea from a tracheotomy tube.

As a rule intubation must be reserved for hospitals, or when trained assistants are constantly at hand, while in general practice it can be successfully used in an emergency and tide the patient over a critical period. The author believes that more than half of all the stenoses of the larynx following diphtheria can be successfully relieved by intubation, and specially notes that this true in many of the severe cases, as well as the lighter forms. Special stress is also laid on the early relief of the stenosis in diphtheria, on the ground that the child will have to combat, not only the toxemia produced by the Loeffler bacilli, but a carbonic acid gas intoxication as well. He concludes by stating that we have in intubtaion a quick and relatively easy, conserving, if not an indifferent, substitute for a bloody operation (tracheotomy) that is not always free from danger and which has many drawbacks

The Treatment of Chronic Suppuration of the Middle Ear and Mastoid Antrum.—WILLIAMS (*St. Paul Medical Journal*, March, 1902).—The author gives a brief description of the diseased conditions which may be found, and calls attention to the fact that the mere profuseness of the discharge forms no index as to the probability of a dangerous extension, nor that, on the other hand, does the paucity of secretion indicate a lessened liability to cerebral and other complications. Some of the most dangerous cases are those in which the discharge, when in evidence at all, is insignificant in amount, perhaps periodical in its appearance and frequently considered unimportant. Cases may go on from twenty to forty years before the inevitable end is ushered in. Death occurs either as the result of an intracranial abscess and its sequel—purulent lepto-meningitis—or invasion of a sinus with general septic infection (particularly abscesses of the lung or liver), or erosion of the carotid canal and artery, death following from hemorrhage. The situation of the intracranial lesion is ordinarily on the side of the diseased ear, but not always; for an abscess may form in any part of the brain as a result of disease of the middle ear.

For the sake of definiteness the writer divides the treatment of chronic suppuration of the middle ear into temporizing and radical measures. Much may be done in the way of temporizing, as a certain number of cases can be cured by the measures usually advocated: first and most important of which is simple cleanliness; next the destruction of granulation and polypoid tissue (which may be accomplished in various ways, by the snare, cutting forceps or chemical agents). A mixture of chromic acid crystals with pipe clay in such proportions as the surgeon may desire, presents, according to the author, an ideal form for the use of that drug, and is to be preferred to any other form of medicinal application when small polypi or granulation masses are to be destroyed. Solutions of nitrate of silver in water or alcohol, or boric acid in alcohol, may be instilled. He doubts the curative virtue of boric acid and condemns the usual method of treatment by boric acid insufflation. A case that resists conscientious and thorough cleansing with judicious use of nitrate of silver and chromic acid, together with such mechanical measures as may be indicated for removal of larger polypi, will not be bettered by the numerous medicines that have been recommended. He proposes for every case of persistent otorrhea the opening of the mastoid antrum and adjacent cells, with or without the more complete Staacke (radical mastoid) operation. A detailed description of the operation is given, and he concludes by stating that when properly done the operation is not a dangerous one, as he has never known of a fatal result due to the operation, while on the contrary a chronic otorrhea is a never-absent menace to life.

OPHTHALMOLOGY.

IN CHARGE OF

JOHN GREEN, JR., M. D.

A Contribution to the Problem of the Occurrence of Ocular Syphilis in the Third Generation.—STRZEMINSKI (Von Graefe's *Arch. fuer Ophthalm.*, liii. Band, 2 Heft, December 17, 1901).—Opinions vary as to the occurrence of the disease in the offspring of a parent the victim of hereditary syphilis, certain authorities (Tarnousky, Finger) affirming the inheritance, not of the disease, but of certain characteristic "dystrophies," while others (Jullien, Hallopeau, Boeck) believe that the disease itself, albeit in somewhat attenuated form, is transmitted. E. Fournier noted nineteen cases of ocular defect in sixty-three children, one or both of whose parents were hereditary syphilitics. Strzeminski is of the opinion that the disease does occur in the third generation, and that its victims are char-

acterized by mental and physical deficiency. Autopsies on children of hereditary syphilitics do not exhibit a picture typical of the disease, but merely general organic and tissue atrophy. These children are often in sound health up to the second year, when, without apparent cause, they grow pale and thin and their future mental and physical development is notably retarded.

The diagnosis of hereditary syphilis in the second generation is very difficult, as the following conditions must absolutely be fulfilled: (1) Positive exclusion of acquired syphilis in the parents; (2) positive knowledge of acquired syphilis in one of the grandparents; (3) exclusion of the possibility of extragenital infection of the patient. These conditions are thought to be fulfilled in the following case:

Male, twelve years old, presented the general physical signs of an hereditary syphilis. The right eye was involved in a typical interstitial keratitis, accompanied by a moderate iritis, with a delicate reticulated exudate in the pupillary area. With the ophthalmoscope the temporal half of the disk was studded with fine pigmented points, and the nasal border encircled by a pigment ring. Throughout the fundus periphery were scattered numerous small, roundish, or irregular pigment flecks, similar to the pigmentation of a retinitis pigmentosa. In the left eye the macula was surrounded by numerous small, round, sharply circumscribed yellowish-red spots, bordered by pigment (areolar retino-choroiditis), while the periphery of the fundus showed general atrophy of the retinal pigment. The latter condition is found in old people, and when occurring in the eyes of syphilitics has been designated by Antonelli "*Senelisme precoce du fond de l'oeil.*" The temporal half of the disk was surrounded by a pigment ring which merged imperceptibly into the rather greyish retina.

The patient's father presented the general physical characters of an hereditary syphilitic, and showed evidence in his cornea of an earlier interstitial inflammation. Ophthalmoscopically there appeared in the neighborhood of the macula numerous whitish areas, surrounded by pigment, which were the expression of the atrophic stage of a retino-choroiditis.

The grandfather of the patient contracted syphilis and married during the full bloom of the disease; he received no treatment until after marriage. His wife was pregnant six times, miscarried three times. Of the children born at term, two died in infancy, the sole survivor being the father of the patient.

A vigorous mercurial treatment, alternating with potassium iodide, resulted finally in complete recovery, although the fellow eye became involved shortly after the beginning of the treatment. Three similar cases are briefly reviewed. The writer concludes in part as follows: Infantile mortality in syphilis of the third generation is lower than in simple hereditary syphilis. Some children present various dystrophies, or, after a year or so, become weakly and their mental and physical development is retarded. Ocular syphilis of the third generation is strikingly similar to that of the second generation. The course of the disease is shorter, however, and readily amenable to treatment.

Corneal Lesions in Acquired Syphilis.—W. H. Wilder (*Jour. Am. Med. Assn.*, December 31, 1901).—Mooren, Panas, and Perrin affirm that corneal lesions do not occur in acquired syphilis. Wilder, on the contrary, believes that the disease is responsible for certain deep-seated inflammations of the cornea, and reports three cases where the etiologic connection seems indubitable.

Case I.—Male, colored, twenty-seven years old, presented himself with a triangular area of infiltration at the upper limbus corneae of the right eye. The opacity consisted of small, deeply-seated foci between which the corneal stroma was somewhat cloudy. There was no roughening of the corneal epithelium. The iris was sluggish, but dilated evenly under atropine. A definite history of syphilitic infection (eleven months previously) was elicited and examination showed enlarged superficial glands and pigmentation of the skin of the trunk

resulting from an earlier rash. Under atropine, hot applications, and potassium iodide internally the cornea cleared completely.

CASE II.—Female, thirty-four years, married, gave a history of rheumatic pains, loss of hair, rash and sore throat, followed by two miscarriages. In the upper portion of the cornea was a deep opacity consisting of dense spots of infiltration between which the tissue appeared somewhat hazy. V: $\frac{20}{40}$. The fellow eye was normal. The posterior cervical glands were enlarged and indurated. In spite of vigorous treatment with potassium iodide the infiltration became more dense and invaded the center of the cornea, vision becoming reduced to $\frac{1}{200}$. After two weeks the condition began slowly to improve and the eventual outcome was excellent with V: $\frac{20}{30}$.

CASE III.—Male, twenty-six, complained of a continual sense of discomfort in the right eye. Examination revealed a half-dozen yellowish-gray spots 1 to 1.5 mm. in diameter lying in the deeper layers of the cornea. Covering two of the spots was a small vesicle containing colorless fluid. The left cornea was normal. A positive history of luetic infection fifteen months previously, followed five months later by inflammation of the right eye (iritis) was obtained. Under atropine and antisyphilitic remedies the ocular condition at once improved and recovery was complete at the end of three weeks.

CONCLUSIONS.—In acquired syphilis a keratitis may occur at any period from the early secondary to the late tertiary. The course of the disease is milder and shorter than the course of the keratitis of hereditary lues. Distinguishing characters are the large dense areas of infiltration, with but little vascularization, and the tendency to involve one eye only. The disease may assume a punctate form, and may or may not be associated with uveitis. There is apt to be comparatively little ultimate injury to the cornea, as the infiltration is removed before the occurrence of permanent opacification. Active antisyphilitic treatment is indicated.

The Eye Defects Which May Cause Apparent Mental Dullness and Deficiency in Children.—C. S. BULL (*Pediatrics*, February 15, 1902).—Hypermetropia gives rise to ocular pain, headache, and a sense of fatigue in the brain, symptoms incident to weakness of the convergence power. With correction of the error of refraction, dullness and stupidity as well as the subjective symptoms disappear.

Astigmatism is productive of indistinct vision for both distance and near, and may be an etiologic factor in the production of various neuroses, and even of epileptiform attacks in susceptible individuals.

Myopia, the outcome of vicious methods of school hygiene, results in the child withdrawing from the companionship of his fellows, thus tending to become morbid and introspective. Appropriate glasses at once enable him to view the world as do his normal-sighted companions, and the supposed mental dullness vanishes magically.

Insufficiencies of the ocular muscles give rise to headache, a sense of strain in the eyes, vertigo, mental confusion, and occasionally diplopia. Prolonged near work of any kind is practically out of the question. In such cases the child's slowness to learn is frequently ascribed to mental ineptitude.

Congenital cataract, dislocation of the lens, absence of pigment in the uveal tract (albinism), coloboma of the iris and choroid, and aniridia are among the rarer ocular defects which may cause apparent mental dullness in some children.

Recently Hinshelwood and Nettleship have reported cases of congenital word-blindness in which there is absolute or relative inability to learn to read. The condition is probably not very infrequent, and the possibility of its occurrence should always be borne in mind by the ophthalmic practitioner. Changes in the left supra-marginal convolution and angular gyrus have been found.

BOOK REVIEWS.

THE JOURNAL OF OBSTETRICS AND GYNECOLOGY OF THE BRITISH EMPIRE. Vol. I, No. 1. Publishers: Bailliere, Tindall & Cox, London. Annual subscriptions, 25 shillings.

This publication aims to be a complete and impartial record of British work in obstetrics and gynecology and a summary of contemporary thought and achievement in these specialties throughout the world. Whilst the original contributions will be the work of British authorities, considerable space will be devoted to abstracts of the writings of foreign obstetricians and gynecologists. A glance over the list of editors of this journal, containing the names of Alban Doran, Sinclair, Cullingworth, Herman and a score of other distinguished gentlemen, cannot but assure the subscriber of much interesting reading for the coming year. The first number contains articles from the pen of Ch. J. Cullingworth, Peter Horrocks, Berry Hart, Sinclair, Murdoch Cameron and Arnold W. W. Lee. We extend to the new publication our heartiest congratulations.

WUERZBURGER ABHANDLUNGEN AUS DEM GESAMMTGEBIET DER PRACTISCHEN MEDIZIN. Herausgegeben von Docent DR. J. MUELLER und PROFESSOR OTTO SEIFERT. A. Stuber's Verlag in Wuerzburg. 1901. G. E. Stechert, New York, Agent. Price per volume containing 12 numbers, Marks, 7.50.

The intention of the editors is to give in each number a critical review of the latest progress in a certain medical problem. Each number forms a separate essay written by a recognized authority. We can heartily recommend these treatises to the busy practitioner who cannot devote much time to reading and who is anxious to keep his knowledge up to date, No. 1 of the second volume of this publication contains a paper of Professor Otto von Franque on "Etiology and Treatment of Rupture of the Uterus." In No. 2 Docent Dr. Roemer deals with the "Significance of Bacteriology in the Pathology of the Eye." No. 3 is an exhaustive expose of the "Treatment of the Malpositions of the Uterus." No. 4 is written by Dr. von Boltenstern. It gives a complete critical review of all the many devices of a "Non-Surgical Treatment of Malignant Growths." The last number out, No. 5, is an essay of Dr. J. H. Spiegelberg on the "Etiology and Treatment of Convulsions in Children."

A MANUAL OF OBSTETRICAL TECHNIQUE AS APPLIED TO PRIVATE PRACTICE, WITH A CHAPTER ON ABORTION, PREMATURE LABOR AND CURETTAGE. By JOSEPH BROWN COOKE, M. D., Visiting Obstetrician to the New York Maternity Hospital, Blackwell's Island. Illustrated. Third edition. Philadelphia and London: J. B. Lippincott Co. 1902.

This book is intended for the young physician, beginning "the struggle against the adverse conditions so constantly encountered in the ordinary practice of midwifery." Therefore the writer entirely eliminates the "hospital idea" from his little work and limits himself to an account of the methods which he found the most practicable in private practice. He gives in 169 pages a great amount of excellent advice and shows, especially in details, his thorough familiarity with the subject Nineteen plates made from photographs greatly elucidate the text. We have only words of praise for those chapters of the book which deal with technicalities. Where the author approaches theoretical questions his deductions become, on account of his desire to be short, somewhat unclear. We do not think that, for instance, the author's opinion in regard to the interruption of pregnancy, as expressed on pages 28 and 55, will offer any help to the "beginner," for

whom the book is written. If the advantages of the Walcher position are praised as increasing the length of the true conjugate (page 113), some space should be devoted to the statement that at the same time the length of the conjugate of the outlet is diminished—*i. e.*, in a case of forceps delivery the patient should be brought back in the normal lithotomy position as soon as the head has passed the brim of the pelvis.

As a whole, this little volume is heartily to be commended.

Die Chemische Constitution des Gehirns des Menschens und der Thiere. (The Chemical Constitution of Human and Animal Brains.) By J. Ludwig W. Thudichum, M. D., F. R. C. S. Price, $2.50. Franz Pietzcker, Tubingen. 1901. G. E. Stechert, New York.

This is a valuable contribution of the subject, the most valuable which we have. It is based upon the author's own researches in this field. In addition there has been collected and critically discussed all the work of any note which has been done by other workers. The standpoint of the author, as expressed in the introduction, is based upon the infallibility of chemical method. This forms the keynote of the whole investigation. In order that this should have any permanent value, the old errors, which have become almost permanent, must be done away with, and the false facts must be laid aside. A work of this kind is, of course, likely to be read by those only who have an adequate knowledge of chemistry and of chemical method, so that the author's painstaking investigations can be followed. But even to those in whom this knowledge is lacking, and to whom the subject appeals more from its clinical side, this work will remain a source-book of information, which will be frequently referred to. No praise is too high for the remarkable scientific care and earnestness, and the just consideration of the work of others which the author has shown in the preparation of this work. It takes its place as a classic in a field which will, in all probability, be the future source of the solution of many of the problems which are now puzzling the workers in psychiatry and neurology.

International Clinics. A Quarterly of Clinical Lectures and Especially Prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pediatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose and Throat, etc. Edited by Henry W. Cattell, A. M., M. D., of Philadelphia, with the collaboration of John B. Murphy, M. D., of Chicago; Alexander D. Blackader, M. D., of Montreal; H. C. Wood, M. D., of Philadelphia; T. M. Rotch, M. D., of Boston; E. Landolt, M. D., of Paris; Thomas G. Morton, M. D., and Charles H. Reed, M. D., of Philadelphia; J. W. Ballantyne, M. D., of Edinburgh, and John Harold, M. D., of London. Volume IV. Eleventh series. Philadelphia: J. B. Lippincott Co. 1902. Price, cloth, $2.00 each; half leather, $2.25 each.

This volume contains some very interesting features. There are usually found in volumes of this series articles which seem to be published nowhere else. Of special note may be mentioned the opening article by A. Jacobi on "Strychnine." The section on neurology contains an article by Marinesco, on "Myelitis." This is a further presentation of his views on this subject, which he expressed in a paper read before the International Congress at Paris in 1900. "Types of Hemiplegia," by G. L. Walton, is of value as bringing out some rare forms of this condition. These rare forms are being more and more recognized. The form of hemiplegia produced by cortical or subcortical lesions, causing disturbances in the astereognostic sense, is illustrated by a number of cases. A more detailed account of the various articles cannot be given without doing an injustice

to some of them, which, for lack of space, would have to be omitted. Attention is, however, called to the concluding article on "Methods of Keeping Case Records in Private Practice." A number of prominent physicians in various specialties contribute their views on this subject, and it contains some worthy hints in regard to this, at times, so puzzling a question. This volume can be fairly said to be very readable, as it contains a class of articles especially adapted to those whose interest in medicine is mostly clinical.

PSYCHOPATHIA SEXUALIS. With Special Reference to Antipathic Sexual Instinct. A Medico-Forensic Study. By Dr. R. V. KRAFFT-EBING. The only authorized Translation of the Tenth German Edition. By F. J. Rebman. 8vo, pp. 585. Chicago; W. T. Keener & Co., 90 Wabash avenue. 1901. Price, $5.00, net.

This is an authorized translation of the tenth German edition by F. J. Rebman. This classic treatise by the well-known Vienna authority is too widely read and has been too often discussed to need special mention here. The work of the translator has been well done, and the English is certainly an advance upon the usual style which we are accustomed to meet with in English editions of German text-books. After all, there is a grave question whether an additional translation was required; not that its need among physicians might not be felt, but that its circulation among non-medical readers might, in this way, be increased. A work of this kind has only a limited value, and it is questionable whether its appearance in many new editions best serves the purpose of its writer. This purpose, after all, is to give aid to those whose work now and then touches upon people of the class described in this work. If, however, it is conceded that a wider knowledge of the psychopathic side of sexual life is of value beyond the physicians' limits, then it is better to have a translation which is accurate and painstaking than one which is neither. The former this latest edition certainly is, and for this and its make-up, in print, paper, and binding, there is nothing but praise. Inasmuch as there is evidence of a renewed interest in the matters touched upon in this book, the appearance of a good, up-to-date translation of this most widely known of works of this class must be recognized as opportune.

THE STANDARD MEDICAL DIRECTORY OF NORTH AMERICA, Consisting of Twelve Parts, Including Directory of Physicians of North America, Medical Colleges, Medical Service of the United States, Medical Societies, Medical Practice Acts, Medical Publications (Including Books and Periodicals), Mineral Springs, Drugs and Medicines, Medical and Surgical Products, Manufacturers and Life Insurance Companies. Handsomely bound in red buckram, 824 pages, imperial octavo. Price, $10.00. G. P. Engelhard & Co., Chicago.

We welcome this volume both for reason that it appears to be a valuable directory, and on account of the assurance given that in future this field will not be monopolized by Polk's Medical Directory. The latter work has been invaluable, but the competition between rival publishers will result in more valuable and comprehensive future editions of both directories. The Standard Medical Directory is in many respects a distinct advance over similar publications. It is divided into twelve parts, each complete in itself and covering respectively medical Colleges, Directory of Physicians of North America, Medical Service of the United States, Medical Societies, Medical Laws, etc., Medical Publications and Libraries, Hospitals, Mineral Springs, Drugs and Medicine, Medical and Surgical Products, Manufacturers and Life Insurance Companies.

ARZNEIVERORDNUNGEN IN DER KINDERPRAXIS. Dritte Auflage. Verlag von S. Karger, Berlin. G. E. Stechert, 9 E. Sixteenth street, New York. Price, 70 cts.

This is a small manual which can be readily carried in the coat-pocket, and contains the indications for the use of drugs and remedial agents in the cure of children's diseases. It also contains the dose and formulary of drugs. The price of the drug is also mentioned.

CONTENTS.

CONCLUDED FROM FRONT COVER.

Neurology 221

Sero-Therapy in Epilepsy.—A Contribution to the Clinical Significance of Absence of the Tendo-Achillis Jerk.—The Condition of the Spinal Cord in Tuberculosis of the Lungs in the Insane.

Genito-Urinary Surgery 224

A Case of Severe and Threatening Hematuria from Movable Kidney, With a Discussion of the Causation of this Condition.—Chronic Cystitis.—A New Test for Albumin.—The Severing of the Vasa Deferentia and Its Relation to the Neuropsychopathic Constitution.—Median Perineal Prostatectomy—Total Removal of the Prostate Gland—Six Cases.—A New Combined Electro-Cautery Incisor for the Bottini Operation.—A Case of Double Urethra.

Dermatology and Syphilis 226

Remarks Upon the Micro-Bacillus of Seborrhea (Sabourand)—Preliminary Report Upon an Examination of the Sebaceous Secretions of the Nose.—Skin Eruptions in Malaria, With the Report of a Case of Urticaria.

Laryngology and Otology 228

Latent Frontal Sinuitis.—Clinical Studies on the Value and Uses of Intubation.—The Treatment of Chronic Suppuration of the Middle Ear and Mastoid Antrum

Ophthalmology 230

A Contribution to the Problem of the Occurrence of Ocular Syphilis in the Third Generation.—Corneal Lesions in Acquired Syphilis.—The Eye Defects Which May Cause Apparent Mental Dullness and Deficiency in Children.

BOOK REVIEWS 233

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